

TO: Chief Executive Officers
Chief Instructional Officers
Chief Student Services Officers
Chief Business Officers
Academic Senate Presidents
Articulation Officers
Curriculum Chairs
Admissions and Registrars Professionals
Institutional Research, Planning, and Effectiveness Professionals

FROM: James E. Todd, Vice Chancellor of Academic Affairs

RE: Advancing Equitable STEM Pathways: Validation and Extension Guidance (AB 1705)

Purpose

The Chancellor's Office is extending the validation timeline for prior-to-calculus pathways in Science, Technology, Engineering, and Mathematics (STEM) programs outlined in the Academic Affairs memorandum [ESS 24-69](#) (Dec. 10, 2024) by one year, from July 1, 2027, to July 1, 2028. ESS 24-69 remains in effect during the extension, and colleges should continue to follow its framework for placement, enrollment, student access, communication, and pathway evaluation while validation work continues. The extension applies automatically to all colleges; no individual college request or approval is required. The extension does not waive statutory requirements under Education Code section 78213, including timely access to STEM Calculus 1 and the requirement that colleges not require or recommend enrollment in a prior-to-calculus pathway that has not been validated, and that colleges notify students who continue to enroll that the course is optional and does not improve their chances of completing calculus for their STEM program (Education Code section 78213(f)(2)).

The additional year will allow colleges to continue to implement and evaluate promising approaches, strengthen evidence of effectiveness, and refine placement, course design, and student support practices. This extension will support the work that remains underway across the system, including the Chancellor's Office's work to analyze statewide and college-submitted data and colleges' work to implement and evaluate innovative strategies, courses, and supports. The extension also responds to colleges' requests for additional time to complete validation. This period will enable the Chancellor's Office to identify implementation needs, refine guidance, and continue supporting innovation and validation as part of the system's broader effort to improve equitable access to and completion of calculus-based STEM pathways.

Colleges with a prior-to-calculus pathway that has not achieved full validation status will be required to submit a spring 2027 progress report to document implementation, student access and communication, course and support design, evaluation activities, and available student outcome data. These submissions will inform continued systemwide analysis, technical assistance, and guidance provided during the extension period.

Continued Guidance and Opportunities for Innovation

Colleges should use the extension to evaluate course and pathway effectiveness and identify improvements in placement, enrollment, course design, advising, tutoring, and student support. Colleges that have achieved full validation status for all of their prior-to-calculus pathways, or that place all students in STEM programs or majors that require STEM Calculus 1 directly into STEM Calculus 1 (with or without concurrent support), do not need to take any new action under this extension and are not required to submit the spring 2027 progress report. These colleges must continue to meet the applicable expectations described below.

Colleges implementing or evaluating a “prior-to-calculus pathway” should make their best effort to use the period through July 1, 2028, to build evidence toward full validation. For purposes of this memo, a “prior-to-calculus pathway” is any placement or enrollment practice that places students in STEM programs or majors that require STEM Calculus 1 into one or more transfer-level courses before STEM Calculus 1. This includes existing transfer-level courses used under the STEM Calculus Pathway Placement Rules in ESS 24-69 and innovative courses developed to precede STEM Calculus 1. All such pathways must remain consistent with Education Code section 78213(f)(1), including the limit of no more than two transfer-level courses before STEM Calculus 1.

College Expectations During the Extension

During the extension period, colleges must provide students in STEM programs or majors that require STEM Calculus 1 with timely access to STEM Calculus 1, with or without concurrent support, consistent with the STEM Calculus Pathway Placement Rules in ESS 24-69. Students who have successfully completed or demonstrated through credit for prior learning (CPL), Integrated Math 4, Trigonometry, Precalculus, or equivalent may not be denied access to STEM Calculus 1. Colleges must recognize prior coursework and competencies demonstrated through CPL, use high school transcript data as the primary basis for placement when available, and use self-reported information when transcripts are unavailable. Placement and enrollment practices **may not** require students to repeat successfully completed coursework or create barriers based on time since high school, special population status, transcript availability, or placement method.

For any “prior-to-calculus pathway” that has not achieved full validation, colleges may not require or recommend enrollment in the pathway (Education Code section 78213(f)(2)), and enrollment must be communicated as optional. Colleges must inform students that the pathway has not been validated as improving their likelihood of completing calculus. This information

should be provided through placement, counseling, advising, catalog language, and other student-facing systems.

Colleges must maintain a clear plan for evaluating and validating each pathway. Consistent with ESS 24-69, a pathway achieves “full validation status” when the college demonstrates with local data that it meets all three standards in Education Code section 78213(f)(1):

- (1) students are highly unlikely to succeed in STEM Calculus 1 without the additional transfer-level preparation;
- (2) the preparation improves completion of STEM Calculus 1; and
- (3) the preparation improves persistence to and completion of STEM Calculus 2, when a second calculus course is required.

Evaluation should include completion, persistence, time to completion, attrition, and disaggregated outcomes, with comparisons across placement pathways used to inform continuous improvement.

How to Achieve Full Validation Status

Colleges may submit validation evidence at any time during the extension period. To request full validation status, a college should submit local data demonstrating that its pathway meets all three standards using the AB 1705 STEM Calculus Pathway Evaluation Template from the [Chancellor’s Office Equitable Placement, Support and Completion webpage](#). Once validated, a college may place and enroll students in its validated course(s) consistent with the STEM Calculus Pathway Placement Rules in ESS 24-69. A college that achieves full validation status for all of its prior-to-calculus pathways before the spring 2027 progress report is due is not required to submit the report.

Reporting and Continued Support

The Chancellor’s Office will issue instructions for the **spring 2027 progress report**. Colleges with a prior-to-calculus pathway that has not achieved full validation status must submit the report. The spring 2027 progress report is a new requirement under this extension and is in addition to the biennial STEM pathway evaluation described in ESS 24-69. The report will collect information about pathway implementation, student access and communication, course and support design, evaluation activities, and available student outcome data. The Chancellor’s Office will use the submissions to support systemwide analysis, identify implementation needs, and inform guidance during the extension period.

Colleges should continue submitting available data through existing reporting processes and using findings to refine placement, course design, enrollment, and student support. Colleges should continue to refer to ESS 24-69 for the STEM Calculus Pathway Placement Rules and

October 13, 2026

validation standards. Questions or requests for additional guidance may be directed to AB1705@CCCCO.edu.

cc: Sonya Christian, Chancellor

Rowena Tomaneng, Deputy Chancellor

Chris Ferguson, Executive Vice Chancellor of Finance and Strategic Initiatives

John Hetts, Executive Vice Chancellor of Research, Analytics, and Data

Renee Craig-Marius, Vice Chancellor of Student Services and Support

Terrence Willett, Assistant Vice Chancellor of Research, Analytics, and Data