

RAP Section III, Program Review Justification

Item 1: overview of the position with rationale

The mathematics department at Los Medanos College has a long history of programmatic work to support students entering the college who are underprepared for college level mathematics courses. After a major grant project two decades ago, the Developmental Mathematics program was created. This program included leadership roles that supported faculty teaching developmental courses. Now, in accordance with the requirements of AB705 and AB1705, the college no longer offers developmental mathematics courses. All students must enroll in a Gateway mathematics course, or a Gateway mathematics course along with a corequisite support course (students' only opportunities for remediation.) The past leadership roles in the department (Developmental Math Education Lead; Math Path to transfer lead) supported the faculty teaching developmental courses, designed to prepare students for transfer level math courses. Now we teach these same students in Gateway and corequisite support courses.

Currently this means support for faculty teaching the following courses: Statistics, Statistics with Support, Number Systems, Quantitative Reasoning, Quantitative Reasoning with Support, Applied Calculus, Applied Calculus with support, Precalculus, Precalculus with Support, Calculus I, and Calculus I with support. (In the fall 2025 semester, this represents over 1500 students.) In alignment with the goal of AB705 to maximize the probability that students will enter into and complete transfer-level math courses within their first year of community college, the Math Gateway lead provides leadership to support faculty and students in these courses. The Math Gateway lead provides support in the areas of professional development, mentoring, curriculum development, maintenance of program requirements associated with AB1705, development of resources for Gateway students, including collaboration with other campus constituencies. The job description with responsibilities and deliverables is found in item 3 below.

The success of students in mathematics courses is tied to the following concerns and requirements.

- *AB 705/1705 requirements:* as noted above, these Assembly bills and the state's guidance for implementation set ambitious goals for students to enroll and complete college level math courses without opportunities for prior remedial course work. The mathematics department has worked on the development and implementation of co-requisite support courses for fifteen years, and we continue this work to this day. The Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have served as faculty leaders for this work. Details of related responsibilities are in the position description below.
- *The state's Student Centered Funding Formula:* The formula includes "A student success allocation based on outcomes that include the number of students who... have completed transfer-level math and English within their first year of college..." This allocation suggests that the college must prioritize scheduling significant numbers of sections of Gateway courses, and providing resources for faculty and students in these courses.

- *The college's Educational Master Plan:* the Educational Master Plan sets forth a goal (Goal 2) to increase and maximize equitable opportunities for students to successfully complete courses and programs. The Developmental Math leads (prior to 2022), the Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have served as faculty leaders for this work. Details of related responsibilities are in the position description below.
- The college's Student Equity Plan: our equity plan includes improving transfer level math completion and decreasing disproportional impacts. The Developmental Math leads (prior to 2022), the Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have served as faculty leaders for this work. Details of related responsibilities are in the position description below.

Item 2: alignment with Mathematics Program Review

Much has changed in the two years since we completed a Comprehensive Program Review. Several ongoing program goals are relevant.

Goal 2: this goal focused on expanding accelerated course offerings through focused leadership, student recruitment, curriculum, and professional development. Faculty in the department worked on the development and implementation of accelerated courses from 2009 until 2022. In our 2023 program review, we noted that we modified the goal in alignment with AB705 requirements. We shifted focus to the development and expansion of co-requisite support courses for Gateway math courses. The Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have engaged in this work. The Math Gateway lead position is designed to continue this work, as described in item 3 below.

Goal 3: Design and implement programmatic effort to support underserved students, including but not limited to students of color and low income students; coordinate our effort with other campus projects.

Our 2023 program review lists specific efforts, including learning community sections, ZTC textbooks, and the need for the Math path to transfer committee (Now the Math Gateway committee) to oversee professional development and curriculum development. The Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have engaged in this work. In particular, the AB1705 math leads have coordinated efforts with the Black Student Success Initiative, the Success Coaches, and Student Equity. The Math Gateway lead position is designed to continue this work.

Goal 5: Design and implement professional development in the form of teaching communities and ordered pairs mentoring.

Developmental Math leads (prior to 2022), the Math Path to transfer leads (2022-2024) and the AB1705 Math leads (2024-2026) have engaged in this work. The Math Gateway lead position is designed to continue this work. See position description below.

Item 3: Mathematics Gateway Lead job description

General Description:

The Math Gateway lead provides leadership in the math department to support faculty teaching Gateway and support courses: Statistics, Statistics with Support, Number Systems, Quantitative Reasoning, Quantitative Reasoning with Support, Applied Calculus, Applied Calculus with support, Precalculus, and Precalculus with Support. Gateway courses are the first transfer level math courses at the college. According to the requirements of AB705 and AB1705, these courses are the only options for students. A student's only opportunity for remediation is to enroll in a Gateway course and a co-requisite support courses. The Gateway and corequisite support courses serve new students at the college; traditionally many of these students were placed into Developmental math courses.

The past leadership roles in the department supported the faculty teaching developmental courses, designed to prepare students for transfer level math courses. Now we support students in Gateway and corequisite support courses.

In alignment with the goal of AB705 to maximize the probability that students will enter into and complete transfer-level math courses within their first year of community college, the Math Gateway lead provides leadership to support faculty and students in these courses. The Math Gateway lead provides support in the areas of professional development, mentoring, curriculum development, maintenance of program requirements associated with AB1705, development of resources for Gateway students, including collaboration with other campus constituencies.

Duties and responsibilities

Professional development and mentoring. The Math Gateway lead serves as the faculty lead and professional expert on first transfer-level and co-requisite math courses. Duties under the umbrella of professional development and mentoring include:

Teaching communities: The Math Gateway lead

- confers with math faculty to select teaching community focal topics each semester, using these topics as the central theme of the community's work.
- plans and organizes the semester's teaching community work, including recruiting faculty to participate, setting meeting schedules, organizing the logistics of time cards, planning activities for meetings, planning classroom observations and reflections, researching and selecting readings and activities for the community, and gathering input from community members for the following semester's community. Topics of the teaching communities focus on improving pedagogical practices, curriculum, and supports for student success.

Ordered pairs and mentoring new faculty: the Gateway math leads organize "ordered pairs" by inviting faculty to collaborate with new Gateway faculty. Pairs may be guided to collaborate on

common course materials and lessons, or they may work through a series of activities designed to support new faculty in learning and understanding course outlines, department and college policies and practices.

FLEX workshops: the Math gateway lead plans and facilitates FLEX workshops related to Gateway and corequisite math courses.

Maintaining knowledge of educational research: the Math Gateway lead maintains knowledge of math education research, with a focus on pedagogy, equity and best practices. This knowledge serves as a resource for decisions around professional development.

Gateway and corequisite course maintenance and development

The Math Gateway lead supports the work of faculty teaching Gateway and corequisite math courses. Duties under the umbrella of course maintenance and support include:

- *New course development:* the Math Gateway lead organizes and facilitates department efforts to create new Gateway and corequisite support courses, in compliance with AB1705 guidelines and requirements.
- *Curriculum development and updates:* the Math Gateway lead oversees department efforts to create and update materials for Gateway and corequisite support courses. The department history of curriculum development has provided instructors with curriculum materials that align to Program Student Learning Outcomes and Course Learning Outcomes.
- *Course resources for faculty:* the Math Gateway lead creates and curates teaching resources for faculty teaching Gateway and corequisite support courses.
- *Course outlines and articulation:* the Math Gateway lead supports the Math department chair in updating course outlines and completing tasks related to course articulation (UC and CALGETC).
- *Course assessment:* the Math Gateway lead supports the Math department chair in organizing the work of course assessments for Gateway and corequisite support courses, including the development of assessment tools aligned with CSLOs and course content, facilitation of discussions of assessment data, and the use of assessment reflections to inform ongoing professional development in the department.

Program support and development

The Math Gateway lead supports the Math department chair and faculty in the ongoing tasks related to the Math program, including:

- *Facilitating the Math gateway committee:* this committee provides input to departmental decisions related to Gateway and corequisite courses, and other projects of the Math Gateway lead related to curriculum, professional development, and student support activities.

- *Guided self placement:* the Math Gateway collaborates with the Math chair to facilitate departmental discussions and decisions around changes to the Guided Self Placement process; coordinates with Outreach and District IT to implement changes; collaborates with Admissions and Records to ensure proper implementation of the Guided Self placement process; reviews the the catalog transfer pathway information for accuracy.
- *Department scheduling and enrollment management:* the Math Gateway collaborates with the Math chair to facilitate departmental discussions and decisions around the one year scheduling of Gateway and corequisite support courses. This work includes analysis of enrollment data for recommendations to the department and college with respect to scheduling/allocation of sections.
- *Knowledge of AB1705:* The Math Gateway lead will maintain current knowledge of State guidelines for AB1705 implementation and update the department with new guidelines.
- *Analysis of student data:* the Math Gateway collaborates with the Math chair, Senior Dean of planning, and Senior Dean of equity to formulate research questions, analyze math student data, facilitate discussions of the Math Gateway committee, and make recommendations to the department and college of strategies aimed to improve student success.

Student support

The Math Gateway lead supports the Math department in the development and facilitation of support activities for students, including:

- *Tutoring:* the Math Gateway lead collaborates with the Senior Coordinator of Math tutoring to organize embedded tutoring for Gateway and Support classes. This work includes budget logistics, hiring, training, schedule coordination, and evaluation.
- *Student support activities:* this work includes the ongoing organization of Math Study slams and other student activities to improve student success in Gateway and Support classes. In collaboration with the Math Department and the Math Gateway committee, the Math Gateway leads develop new support activities based on feedback. These activities are budget dependent.
- *Counseling partnership:* work collaboratively with Counseling faculty to develop student-centered presentations and activities.

Liaison with campus constituencies

The Math Gateway lead serves as liaison to campus committees in order to accomplish the tasks described above. These partnerships include:

- The Black Student Success Initiative
- The Office of Equity and Inclusion
- Counseling
- The Success Coaches
- Representatives of campus funding sources
- Enrollment Strategy and Planning Committee

Math Gateway Lead Deliverables:

Professional Development & Mentoring

- Teaching community semester plans, agendas, readings, curriculum and other materials, and faculty reflections
- Ordered pairs activities, orientation materials, faculty evaluation of their activities.
- FLEX proposals, workshop plans and agendas, meeting notes and faculty evaluations.
- Summary of relevant research available to all math department members

Gateway and Corequisite Course Maintenance & Development

- Development notes, course outlines for new and updated courses, articulation summary
- Shared repository (such as Canvas Shell) for resources
- Curriculum Review Summary documenting updates aligned with PSLOs and c. Faculty Course Resources
- Orientation document for new instructors (annually or as needed)
- Course assessment instruments and reports Recommendations for PD based on Assessment data

Program Support & Development

- Gateway Committee Facilitation
- Meeting Agendas & Minutes for Gateway Committee
- Annual Committee Summary Report including input on curriculum, PD, and student supports
 - Guided Self Placement
 - Revision Proposal for Guided Self Placement changes (
 - Implementation Coordination Plan with Outreach, IT, and A&R
 - Updated Catalog Review Memos
- Scheduling & Enrollment Management
 - Enrollment Data Analysis Report with recommendations for course scheduling
 - One-Year Scheduling Plan for Gateway/Support courses
 - Policy and Compliance (AB1705)
- AB1705 Implementation
 - Summary of current requirements and department impact (as needed)
 - Creation and dissemination of Pathways Flyers
- Student Data Analysis
 - Research Questions & Data Report prepared in collaboration with Deans
 - Data-Informed Recommendations for departmental action

Student Support

- Tutoring Support
 - Embedded Tutor Schedule & Assignment List
 - Tutor Hiring & Training Plan with budget documentation

- Tutor Evaluation Summary
- Student Support Activities
 - Activity Plan for each Study Slam (or other planned events)
 - Event Flyers & Materials
 - Post-Event Report with student feedback and participation data
- Counseling Collaboration
 - Presentation Materials for activities with Counseling
 - Summary of Counseling Activities and impact

Campus Liaison Work

- Meeting Attendance notes for relevant campus committees
- Collaboration Summary Reports showing how campus partnerships supported Gateway goals
- Pathways flyers