



Transitions and Transformation: Embedded Peer Support at Cal State East Bay



Introductions

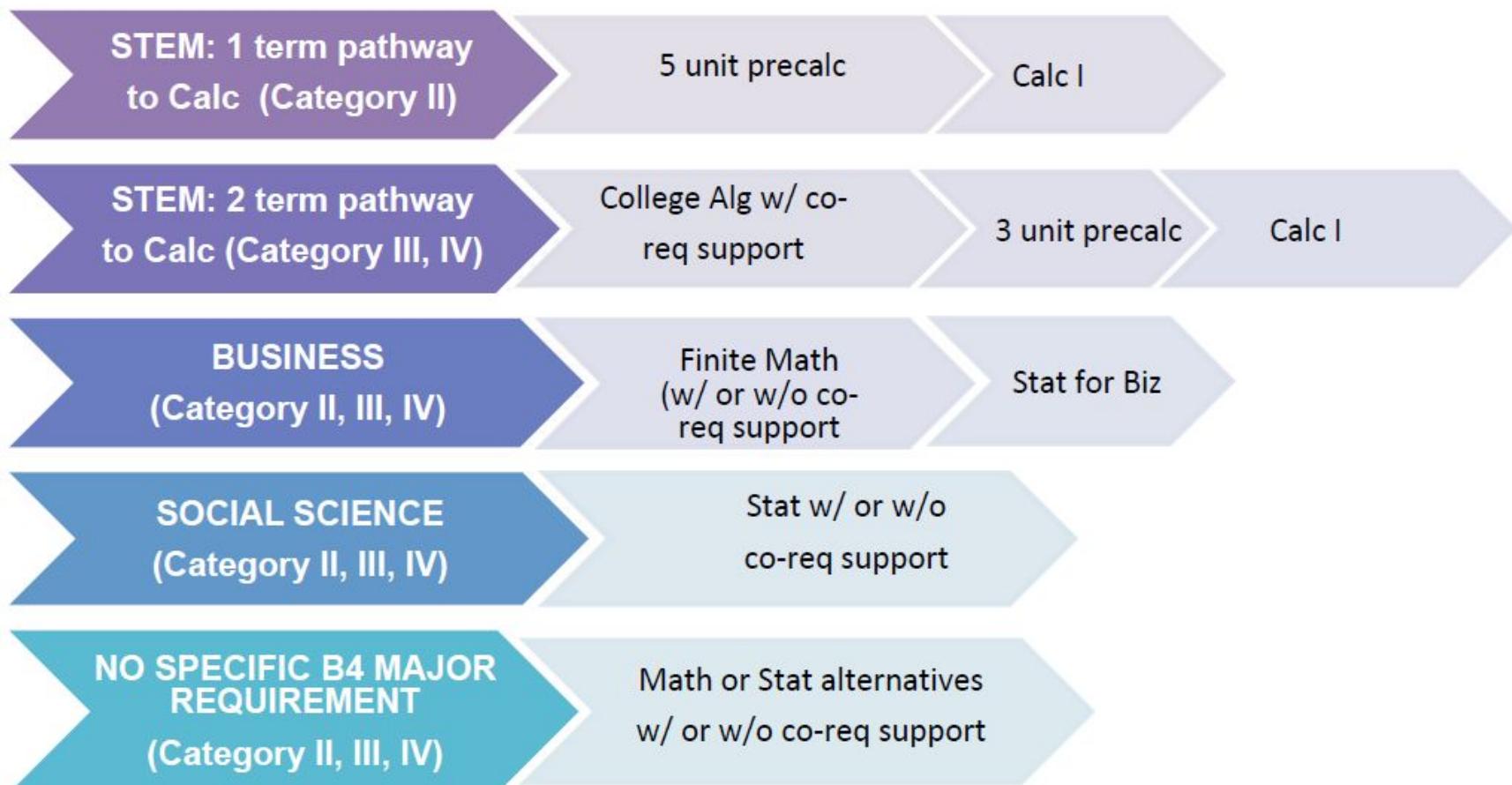
Julie Glass, Chair of Mathematics

Joshua Kerr, Chair of Statistics & Biostatistics

Alicia Still, Coordinator of the Math Lab



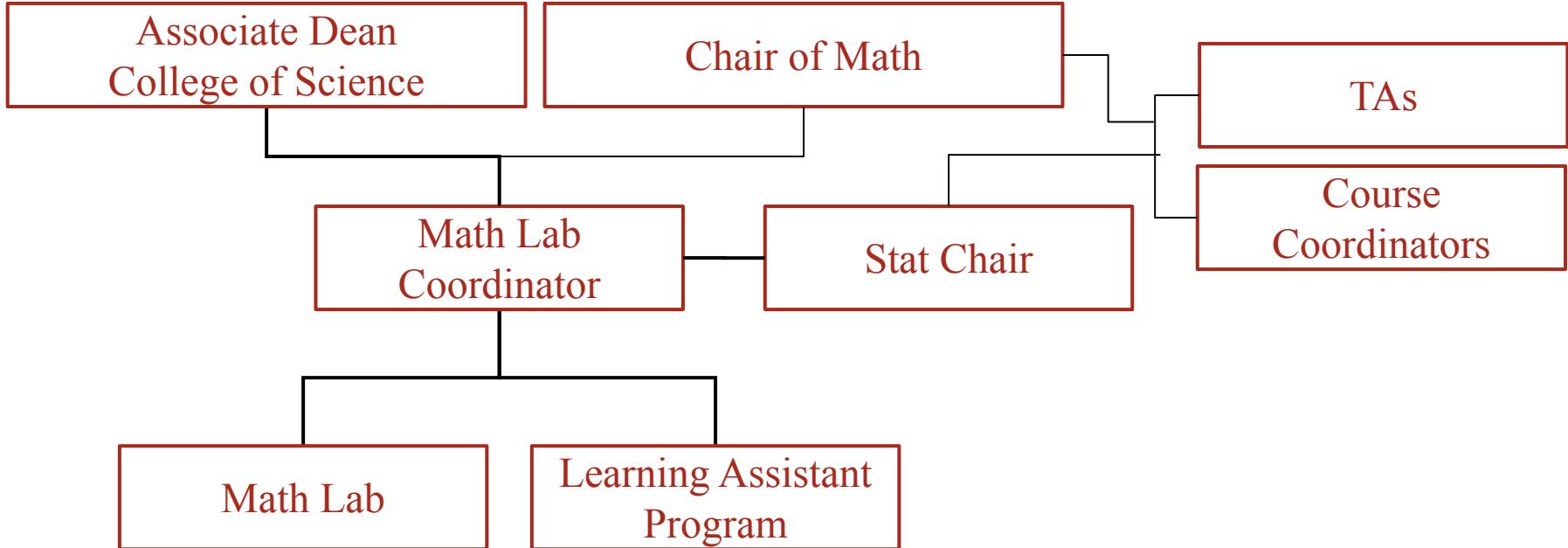
B4 Pathways post EO 1110





Overall Structure

- Co-req courses taught by Graduate Student Teaching Associates (TAs) structured like “discussion sections.”
- Embedded peer support (Learning Assistants)
- Community learning space (Math Lab → STEM Lab)





Courses Covered

- College Algebra and Workshop (Math 115 and 15)
- Precalculus 3 units (Math 120)
- Precalculus 5 units (Math 125)
- Math for Business (Math 180, now Math 110 and 10)
- Math for Arts and Humanities and Workshop (Math 118 and 18)
- Introductory Statistics and Workshop (Stat 100 and 100A)
- Statistics for Everyday Life and Workshop (Stat 101 and 101A)
- Statistics for Business (Stat 110)



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Learning Assistant Program, founded Fall 2018



- LA embedded in “parent” course
- LA embedded in “co-requisite” support course
- LAs staff the Math Lab for drop-in support



Goals of the LA Program

1

2

3

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Facilitate active learning in-class with intentionally inclusive practices

Build community in class so the students feel comfortable seeking support outside of the classroom

Serve as accessible role models as current students who “have been there”

Close equity gaps by increasing engagement and sense of belonging in gateway STEM courses



Learning Assistant Details

- **LA Qualifications:**
 - Earned a B or higher in the course serving
 - Cumulative GPA of 3.0 or higher
 - Enrolled as a sophomore, junior, or senior student
- **Hours Worked by LAs:** 10 hours per week
 - Ideally: 2.5 hrs in “parent” course, 1.5 hrs in “co-req” courses, 1 hr meeting, 1 hr of prep, and 4 hrs in Math Lab
- **Pay Rate:** \$14.00/hour, increased to \$15.00 after first year
- **Funding:** One-time funding from GI 2025, now funded by the College of Science and MSTI. ~50% of LAs have FWS.
- **Training:** 3-day pre-term training and weekly meetings. Hoping to launch a pedagogy paid workshop series or credit-bearing course for new LAs in Fall 2021.



LA Roles and Responsibilities

- **Inside of class**
 - Facilitate active learning and assist with activities
 - Encourage small group discussion
 - Facilitate ice breakers & build community
 - Record parent class topics covered each day in shared google sheet
- **Outside of class**
 - Hold drop-in hours in Math Lab (for ALL students in the course, not just their section)
 - Facilitate exam review sessions
 - Encourage study groups & making studying social
 - Build connections with students
 - Weekly meetings for professional development and community building



How the LA role has been modified during online instruction

WAYS TO UTILIZE YOUR LEARNING ASSISTANT IN AN ONLINE COURSE

Out-of-class Support:

- Assist students & answer questions during their drop-in hours in the Math/STEM Lab
- Post announcements on Blackboard about resources, reminders, etc.
- Manage a community thread on Blackboard: getting to know students & building a class community
- Provide feedback to faculty from the student perspective
- Serve as a sounding board for new activities and ideas
- Create activities for in-class use
- Host exam review sessions
- Act as a role model and share strategies for college success

In-(remote)-class Support:

- Move between breakout rooms to assist students with group work and discussions
- Temporarily set as host so LA can create & manage breakout rooms (stage manager)
- Track attendance
- Monitor the Nonverbal Feedback options (Chat or Raise Hand feature)-- respond to questions and alert instructor when something in chat needs their attention
- Conduct polls (through Zoom, Google Forms, Kahoots, etc.)
- Facilitate planned activities or ice breakers
- Catch up students who arrive late
- Type instructor's directions and questions in the chat for clarification
- Be a time keeper for activities
- Reach out to students who may seem disengaged, lost, or after an absence
- Encourage interaction between students, group discussion, and questioning
- Ask relevant questions during lecture to enhance student understanding
- Stay engaged and take quality notes
- Lead topics such as quality note-taking, staying engaged online, studying for exams, and attending office hours
- Have resources and links readily available for students

**LAs should always be set as a co-host on Zoom.

**They should NOT grade student work.

**Allow them to speak to the class every day (even just to say hello & remind students of Math/STEM Lab)



Faculty and the LA program

- ALL sections of a given course are assigned an LA
- Instructors new to teaching an LA-support course are first told about the program by Dept Chair
- Instructors are provided an introduction to their LA from the Math Lab Coordinator 2 weeks prior to start of term
- Instructors receive an orientation “flier”
- Instructors are invited to a pre-semester faculty orientation



THE MATH & STEM LAB

A MATH & SCIENCE
COMMUNITY LEARNING SPACE

WHAT IS THE LEARNING ASSISTANT (LA) PROGRAM?

The LA program is an embedded peer support program that focuses on supporting faculty & students both in and out of the classroom.

WHO ARE THE LAS?

Learning Assistants are undergraduate students who were previously successful in the course and are now embedded in a section of that course as support.

WHAT IS THE ROLE OF AN LA?

LAs are a resource for faculty implementing active-learning and a source of feedback from the student perspective. LAs engage in four main activities:

- (1) Attend class every day and interact with students in class.
- (2) Provide drop-in support for students in the Math/STEM Lab.
- (3) Engage with faculty & graduate TAs in biweekly Course Conversations.
- (4) Participate in pre-semester training and biweekly LA staff meetings centered around pedagogy & professional development.

WHAT IS THE ROLE OF AN INSTRUCTOR / GRAD TA?

Faculty members/graduate TAs with an LA should engage in four main tasks:

- (1) Build a safe environment for continued collaboration & feedback (it is “our” class).
- (2) Use materials that facilitate active learning that utilize the LA during class time.
- (3) Engage with LAs & graduate TAs in biweekly Math/STEM Lab Course Conversations.
- (4) Regularly check-in with the LA for feedback from the previous day/week & prep them for the upcoming day/week.



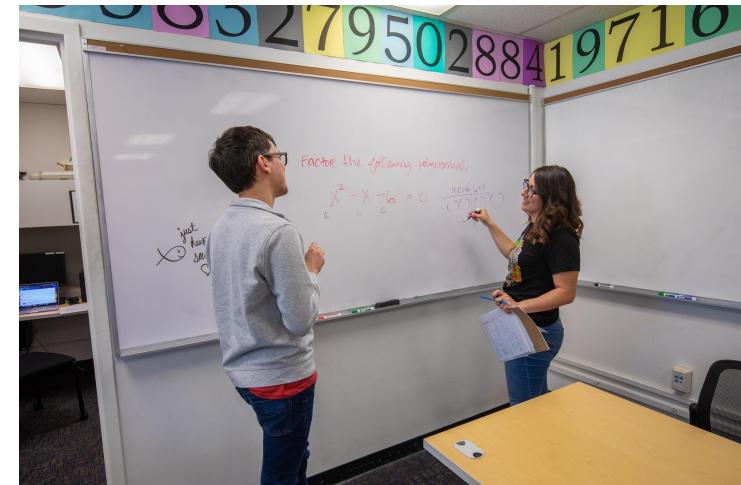
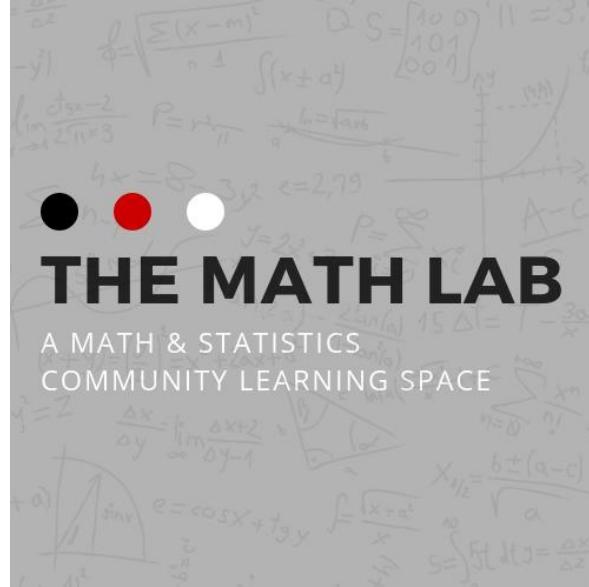
LAs by the numbers

	Fall '18	Spring '19	Fall '19	Spring '20 (COVID)	Fall '20 (COVID)	TOTAL
# students	283	492	602	532	358	2267
# sections parent + support	41+37	39+28	46+38	39+26	37+35	202+164 = 366
# LAs	21	21	33	38	53	166
# TAs	24	18	19	17	21	99
#Instrutors	15	19	19	21	25	99



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Community Space, founded 2018



A DREAM
written down with a date becomes a
GOAL
A goal broken down into steps becomes a
PLAN
A plan backed by
ACTION
makes your dreams
REALITY



Math Lab Activities

TA Office Hours: The Teaching Associates have a dedicated office inside of the Math Lab. They hold at least one office hour per week. They are available for drop-in support for students from any section of the course they serve. The TAs often do their own studying in their office and make themselves available to students and even LAs for questions or support.

LA Drop-in Hours: The Learning Assistants staff the Math Lab during open hours: Mondays - Thursdays from 10:00am - 8:00pm and Fridays - Sundays 10:00am - 2:00pm. They are available for drop-in support for students from any section of the course they serve. They also facilitate exam study sessions for their assigned parent course and encourage student study groups.

Course Conversations: The Math Lab hosts bi-weekly facilitated discussions required for all TAs and LAs with strong encouragement for instructors to attend as well. This intentional collaboration time is for community building, feedback, professional development, and brainstorming. These meetings alternate between course team check-ins and professional development topics with presenters from other campus partners.

Early Start / Five to Build: The Math Lab Coordinator is on the Five to Build planning committee and closely collaborates with General Studies and Peer Academic Coaching. Learning Assistants serve as embedded peer support during the program and students spend a day in the Math Lab when on campus.

Boot Camps: During the winter intersession, free math boot camps are offered in the Math Lab. These are opportunities for students to brush up on their algebra skills and prepare for success in their Spring math class. The boot camp materials and format are developed by TA/LA pairs and cover topics most useful for spring coursework.

Pi Day Celebration: The Math Lab hosts a campus Pi Day Celebration: a celebration of pi, pie, and puns! All faculty, staff, and students are invited to attend. This is an opportunity for fun, math-related activities, eating delicious pie, and for students to build connections with faculty outside of the classroom.



Math Lab Usage

	Fall '18	Spring '19	Fall '19	Spring '20 (COVID)	Fall '20 (COVID)
# Visits	560	2133	3537	2249	1181
# Unique students	283	492	601	532	358
visits/student	1.98	4.34	5.89	4.23	3.30



Growth, STEM, VISTAs

Math Lab Growth: Started off serving 2 math and 2 stat courses, now expanded into 5 math and 3 stat courses.

STEM Lab: LA Program expanded into sciences and launched STEM Lab in Fall 2020. We now have a STEM Lab Coordinator to supervise the Chem, CS, Geol, and Physics LAs, serving 9 courses. Hopefully more to come!

CSU STEM VISTAs: The CSU STEM VISTA Program is a national service program through AmeriCorps with the goals of improving retention & graduation rates, and eliminating race, class, and gender disparities in STEM.

- STEM LA Liaison: Enhancing the LA training & mentoring with equity practices.
 - Collaborating with campus partners on workshops such as Mental Health, Self Advocacy, Imposter Syndrome, Learning Theory, Implicit Biases
- STEM Faculty Liaison: Intentional with equity- & asset-based activities in classes.
 - Informational sessions, pre-semester orientation, and 1:1 meetings for science faculty new to the LA program
 - STEM Faculty Resource Folder
 - Faculty Weekly Tips





Focus on Equity: Faculty Weekly Tips

CSCI FACULTY WEEKLY TIPS

FOCUSING ON INCLUSIVITY

Inclusive language and representation go a long way... creating a safe space in the class. As you build trust between you and the students, let them know that respect and inclusivity are important in and out of class.

INVITING SPACES



Consider renaming "office hours" to "drop-in hours" or "student hours" to encourage help-seeking behavior and overcome student apprehension or misunderstandings around the term "office hours."

IMAGERY

Images representing the diversity of our students can be used in your presentations and course materials.



LANGUAGE
Using preferred pronouns creates an inclusive environment. Feel free to share yours during introductions or rename your Zoom profile and invite students to do the same. his may look like: First Last Name (he/him), (she/her), (they/them)

WANT TO LEARN MORE?

The **Office of Diversity** offers many resources on this topic.



If you have any questions, please email
Jose Canela, CSU STEM VISTA: jose.canela@csueastbay.edu



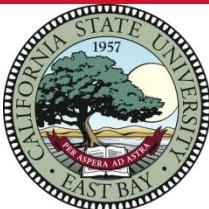
Challenges

- Parent and co-req courses have different LAs.
- A given co-req may have students from several different parent sections that may have different pacing, etc. and disrupts opportunities for community building.
- Students don't understand how/who/why they are in the co-req.
- No one has the time to communicate regularly face-to-face.
- Funding
- Tension and communication between units that offer embedded peer programs (e.g. SI)
- Difficulty in assessing impact
- Growth



Responses to Challenges

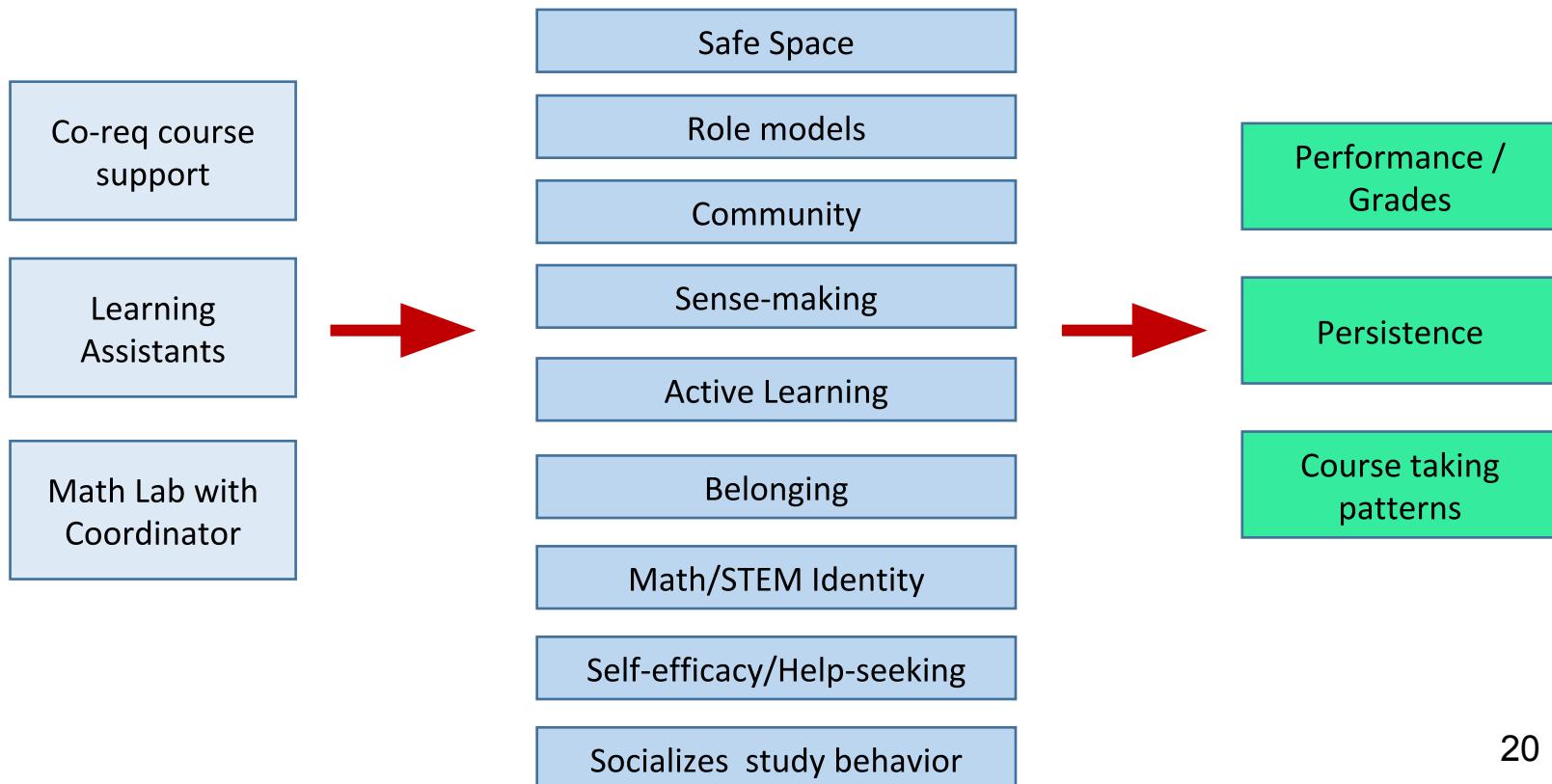
- Flexibility!
- Restructuring co-req as “course component” where possible
- Using Course Conversations for feedback, professional development, and brainstorming.
- Manage expectations -- be realistic, be patient.
- Streamlining information sharing from parent to co-req via LAs
- Need better coordinated institutional approach -- admissions, advising, and academic side.



Aspirational Logic Model

- = Intervention
- = Mechanisms/ Intermeta outcomes
- = Outcomes

(Mixed methods evaluation initiated by Center for Research, Equity, and Community Engagement.)





Feedback from Students

“Our Learning Assistant is an extra arm for the Professor because she is able to assist us if our Professor is busy” (2019).

“When doing individual or group work, they assist the teacher in going around from person to person or group to group, making sure that everyone is on track and understands the work. With two people it is a lot more efficient, and no time is wasted with students confused and waiting for help” (2020).

“She comes by and helps us work through problems. She holds sessions for us to help with hard topics. She voluntarily held a midterm session for us” (2019).

“The Math Lab has not only been a great support for incoming students to introductory math courses, but for me as an LA as well. I’ve become a more confident student, leader, and future instructor” (2018).



Feedback from LAs

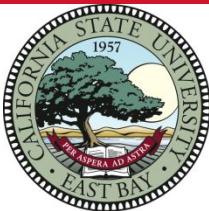
“The Learning Assistants have such great relationships with their students. It really helps facilitate the learning process” (2018)

“Being part of the LA program has taught me how to properly communicate with professors and my supervisor. It has also gave me a place on campus to feel like I belong” (2018)

“I felt myself become a part of the CSUEB and math community through the Math Lab” (2019)

“The Math Lab helped me grow as a person, a Learning Assistant, and a mentor. Joining the Math Lab has been a life changer for me” (2019).

“The Math Lab is a safe place for me. It’s where I spend most of my day studying, relaxing, and hanging out with members of the program who are like family to me. The Math Lab is my community!” (2019)



Actionable outcomes

- a) Underserved student groups had a comparable level of satisfaction with the Math Lab but used it at a lower rate. So, once the students are in the Math Lab, they find it welcoming and supportive....but fewer are accessing it than we want to see. So, our focus here should be on getting students TO the Math Lab.

- b) The challenges of having a mix of parent sections in the co-reqs continues to be a barrier to their effectiveness.



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Questions?

