CalTeach Logic Model

Revision Date: June 6, 2019   Effective Date: July 1, 2019

Addressing the state's shortage of highly qualified math and science teachers through expanded pathways for diverse students majoring in science, technology, engineering or mathematics (STEM) disciplines to pursue teaching careers.

RESOURCES	ACTIVITIES	OUTPUTS	1–2 YEAR GOALS	2+ YEARS GOALS

RESOURCES

Organizational Partners:

Nine UC undergraduate campuses

California Community Colleges (CCCs)

Participating K–12 schools

Other constituents interested in STEM education, e.g., external advisory boards, 100Kin10 and science museums

Human Capital:

University of California faculty, staff and students

California Community College faculty, staff and students

K–12 supervising/mentor teachers

K–12 school, district, county, and state leaders

K–12 students

Funding:

UCOP and local campus support

State funding

Federal funding (e.g., NSF grants)

Extramural funding (e.g., corporate, private or intersegmental sources)

LEGEND

CalTeach Essential Elements (EEs):

EE1: Equity in STEM Teaching & Learning

EE2: Recruiting & Advising

EE3: Coherent Curriculum

EE4: Field Experiences & Mentor Teacher Support

EE5: STEM Partnerships

EE6: Teacher Professional Growth Experiences

EE7: Ongoing Program Evaluation and Research

EE8: Faculty Leadership, Collaboration, & Research

ACTIVITIES

UC CAMPUSES

EE2: Recruit STEM and likely STEM majors into CalTeach, especially those from underrepresented groups (e.g., first-generation or URM)

EE1, EE2: Advise and mentor students about teaching career opportunities and support their courses/training (e.g., by facilitating supported communities of participants)

EE1, EE2: Provide incentives for students to emphasize that teaching is a valued career (e.g., scholarships)

EE8: Foster cross-department faculty leadership, collaboration and research

EE3: Provide coherent curriculum of CalTeach courses in math and science education (e.g., leading to a minor or concentration)

EE4: Provide field experiences with mentor teachers in K–12 classrooms purposefully scaffolded to integrate with CalTeach coursework and improve teaching practice

EE5, EE6: Provide professional exposure (e.g., summer/academic year internships, conferences, network building, STEM community partnerships or research experiences)

EE7: Perform program evaluation and research using both quantitative and qualitative data

EE5: Pursue extramural funding

COMMUNITY COLLEGES

EE1: Liaise with CCCs to enable transfer students to enter UC CalTeach programs as upper-division students, including facilitating cross enrollment in CalTeach courses

K–12 SCHOOLS AND EDUCATORS

EE4: Provide field experiences and mentorship to undergraduates who are exploring K–12 teaching careers

EE4: Provide incentives for K–12 mentor teachers (e.g., financial incentives or professional development opportunities)

UCOP

EE7: Support and coordinate systemwide initiatives (e.g., resource development and professional development opportunities)

EE7: Produce uniform campus and systemwide metrics, analysis, and reports, including statewide and national context

EE7: Work with campuses to communicate CalTeach's value and outcomes to the general public and policy makers

OUTPUTS

UC CAMPUSES

Number of CalTeach participants, especially those from underrepresented groups (e.g., first-generation or URM)

Number of CalTeach participant in STEM, non-STEM and undeclared majors

Percentage of CalTeach participants who have taken more than one CalTeach course

Number of CalTeach participants who complete a STEM and STEM-related degrees, especially those who graduate from UC

Number of hours CalTeach participants spend in K–12 schools as part of coursework and internships by high-needs school/district status

Number of CalTeach participants who obtain credentials (especially math, science and multi-subject)

Number of CalTeach participants in teaching positions by high-needs school/district status

Number of CalTeach participants retained in teaching positions by number of years teaching and high-needs school/district status

Number of cross-department collaborations, including presentations, publications and other products

Amount of leveraged funding by source

COMMUNITY COLLEGES

Number of community college students who transfer to UC and participate in CalTeach, including those who previously cross-enrolled in CalTeach courses

K–12 SCHOOLS AND EDUCATORS

Number of partner schools by high-needs school/district status and duration of partnership

Number of participating mentor teachers, both new and continuing

UCOP

Establish and maintain MOUs with external agencies for data matching/reporting

1–2 YEAR GOALS

UC CAMPUSES

Maintain or increase number of CalTeach participants, especially STEM majors and students from underrepresented groups (e.g., first-generation or URM)

Maintain or increase percentage of participants who complete more than one course

Maintain or increase number of participants who graduate from UC

Maintain or increase number of cross-department collaborations

Maintain or increase amount of leveraged funding

COMMUNITY COLLEGES

Maintain or increase number of CCC students who transfer to UC and participate in CalTeach, including those who previously cross-enrolled in CalTeach courses

K–12 SCHOOLS AND EDUCATORS

Maintain or increase number of partner schools by high-needs school/district status and duration of partnership

Maintain or increase number of participating mentor teachers, both new and continuing

UCOP

Maintain or increase program resources, including funding

Foster additional partnerships with external agencies for data collection, matching and/or reporting

2+ YEARS GOALS

UC CAMPUSES

Maintain or increase number of CalTeach participants, especially STEM majors and students from underrepresented groups (e.g., first-generation or URM), who accomplish the following:

- Obtain credentials (especially math, science and multi-subject), by recommending institution type
- Obtain teaching positions, including in high-needs schools/districts and by subject area (e.g., in high-demand STEM subjects)
- Persist in teaching positions, including in high-needs schools/districts
- Enter education leadership positions, including curriculum development and administration

COMMUNITY COLLEGES

Establish long-term formal agreements with target CCCs, including course articulation

Maintain or increase collaboration between CalTeach programs and campus transfer services.

K–12 SCHOOLS AND EDUCATORS

Maintain or increase number of CalTeach alumni serving as K–12 mentor teachers

UCOP

Work with campuses to develop a CalTeach alumni network

Increase program resources, including funding

Work with campuses to facilitate assessment of best practices for K–12 STEM professional development, including issues of social equity