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CALIFORNIA COMMUNITY COLLEGES

Doing What **MATTERS**™

FOR JOBS AND THE ECONOMY

## Teacher Preparation Pipeline (TPP) STEM/CTE Collaborative



The mission of the TPP STEM/CTE Collaborative is to engage colleges in developing successful teacher preparation programs by facilitating access to strategies, tools and resources that can boost the number and diversity of students entering the education field, particularly in science, technology, engineering and math (STEM) and career technical education (CTE).

Addressing California's severe teacher shortage is a top priority in California Community Colleges as we align our education systems to develop pathways in high-demand STEM and CTE fields. The TPP STEM/CTE model equips colleges to prepare current and future teachers with the 21<sup>st</sup>-century skills needed to work in education careers that are essential to the California economy, recruiting and preparing a diverse education workforce dedicated to all students' success.

### TPP STEM/CTE Collaborative Programs Focus On:

- **Growing the Teacher Workforce:** Recruiting diverse potential teachers from across STEM, CTE and education programs, with mentors, advising, student support, and partnerships to create multiple pathways into education professions
- **Enhancing Skills in the Current Teacher Workforce:** Support for CTE credentialing, CSET preparation, and integration of career education and current industry standards into instructional practice
- **Innovating by Design:** Articulated and accelerated curriculum with contextualized instructional practices, building education pathways within STEM/CTE pathways
- **Infusing Career Field Experience:** Work-based learning and community-based service learning with education and industry partners
- **Collaborating Regionally:** Cross-system partnerships to expand and align high demand education pathways, including STEM, CTE, bilingual and special education
- **Sustaining Communities of Practice:** Collaborative structures to tackle challenges and share best practices among education faculty, within and across systems



#### Teacher Workforce Shortages:

*"Between 2013-14 and 2015-16, California preliminary credentials issued by the Commission on Teacher Credentialing stagnated at about 11,500 each year... Meanwhile, district estimated teacher hires continued to grow, exceeding 22,300 estimated hires in 2016-17."*

*-D. Carver-Thomas and Darling Hammond, L. Addressing California's Growing Teacher Shortage; 2017 Update, Learning Policy Institute, 2/17*

*Teacher Preparation Pipeline programs are critical to the development of career pathways throughout the California Community Colleges.*



*California teacher education will benefit from the diversity and faculty expertise of community college pathway programs, and from the alignment of K12, community college and university education pathways.*



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The California Community Colleges is the largest system of higher education in the nation composed of 72 districts and 114 colleges serving 2.1 million students per year. Community colleges supply workforce training, basic skills education and prepare students for transfer to four-year institutions. The Chancellor's Office provides leadership, advocacy and support under the direction of the Board of Governors of the California Community Colleges.

For more information about the community colleges, please visit:  
<http://californiacommunitycolleges.cccco.edu/>

## TPP leaders support colleges to:

### Recruit from key student populations:

- High school and college students on transfer pathways,
- Current education professionals seeking to upgrade their skills and earn new credentials
- Community college students successful in CTE & STEM
- Second career and retired industry professionals
- Community college students underrepresented in teaching professions

### Align and collaborate with partners in education and STEM/CTE industry sectors to:

- Identify, recruit and mentor potential teachers
- Provide teacher-related internships, apprenticeships, mentors and faculty externships
- Develop education pathways and infuse the teaching pathway into STEM/CTE pathways
- Strengthen education pathway programs of study, and facilitate transitions and student success
- Map pathways, establish faculty communities of practice, sequence and articulate coursework, emphasizing dual enrollment, and create MOUs

### Access resources to adapt and adopt model TPP strategies:

- Downloadable templates & samples of marketing materials
- Links to potential funding resources for TPP programs
- Networking & leadership opportunities
- Contextualized 21<sup>st</sup>-century curriculum
- Professional development to increase faculty knowledge and skills in teacher preparation, including on pedagogy, curriculum development, and credentialing requirements

### Support Doing What MATTERS for Jobs and the Economy and the Strong Workforce Initiative:

- Grow a statewide network of STEM/CTE teacher education programs linked to Doing What MATTERS industry sectors
- "Grow Our Own" future teachers for a workforce that better represents the diversity found in 21<sup>st</sup>-century classrooms
- Grow partnerships with education agencies and STEM/CTE industry partners for educator-specific work-based learning
- Grow student engagement, support and incentive structures to ensure student success in education careers

### Key Contacts:

Annie Johnston, Statewide Technical Assistance Provider  
[anniej@berkeley.edu](mailto:anniej@berkeley.edu)

Renee Marshall, TPP STEM/CTE Director  
[renee.marshall@canyons.edu](mailto:renee.marshall@canyons.edu)

Tonette Salter, TPP STEM/CTE Program Coordinator  
[tonette.salter@gcccd.edu](mailto:tonette.salter@gcccd.edu)