**LOGIC MODEL: TRACK 1: COMMUNITY OF PRACTICE**

Cultivate and grow regional cross-sector partnerships and increase interdisciplinary campus collaboration across our Sacramento City College Maker Ecosystem

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**Resources**

- SCC Community Maker Program
- CCC Maker & CCCCO committed to support maker colleges
- Our growing SCC Ecosystem
- SCC Makerspace Self Study
- SCC Makerspace Planning Team
- SCC Makerspace Advisory Board
- SCC Student Clubs/Organizations
- Commitment for 2000 sq. ft. Facility Space on Main Campus
- HSIs/STEM (SESI) Alliance
- Strong Workforce Participation
- Cross Disciplinary Collaboration
- Broad Campus Support

**Activities**

- Create structures for networking and cooperation across campus and regionally
- Encourage makerspace visits, events, trainings, job shadows, regional site visits, for all partners
- Develop a deeper understanding of ecosystem’s assets and gaps
- Engage in outreach and communication to stakeholders and regional community
- Identify, map, and engage additional partners continually such as Counseling, Administration, and outlier Departments and Divisions
- Build partners' familiarity with makerspace programs and evaluation strategies
- Expand and/or reallocate financial and human capital resources for makerspace sustainability
- Define shared vision, makerspace mission, priority goals and desired outcomes

**Outputs**

- Self-assessments and Gap analysis
- Constant ecosystem map evolution
- Evidence of partners’ familiarity with Makerspace/STEAM
- Participating in cross-sector learning
- New pathways emerge to navigate toward STEAM success
- Committed, long-term funding
- New or reallocated resources to support sustainability
- Number/reach of communications
- Measurable improvement in STEAM learning and student and stakeholder engagement outcomes across all student populations

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**Evaluation**

- Self-assessments • Ecosystem map • Gap analysis • Goal and outcome statements • Evaluation alternatives
- Interviews/surveys with stakeholders across sectors
- Analysis of partnerships to determine level of diversity and representation across all sectors
- Map of new learning opportunities, showing interdisciplinary connections • Map of new pathways that students are accessing
LOGIC MODEL: TRACK 2: CURRICULUM
CREATE AND CONNECT STEAM-BASED CURRICULUM, INCLUDING ALTERNATIVE LEARNING ENVIRONMENTS IN DIVERSE SETTINGS ON CAMPUS AND IN THE COMMUNITY

Resources
- SCC Curriculum Maker Program
- Partners named in Track 1
- Educators from different settings (Maker/STEAM/CTE sectors)
- Equipped with knowledge and skill to lead curriculum development
- Formal and informal learning opportunities via our student clubs and organizations, and existing activities and events in multiple settings: classrooms, design lab, computer lab, art labs, galleries, learning resource center, the quad, the cultural awareness center etc.
- Professional Development opportunities to develop STEAM curricula
- Access to Makerspaces both on campus and with our community partners with adequate access, training and materials, and support
- Financial, human capital and other supports to expand, connect and improve curricula and alternative Maker/STEAM environments
- Flex/PD activities for faculty at Makerspace to encourage curriculum development

Activities
- Implementation of a Professional Development plan that includes collaborative activities for making and increased project-based learning
- Utilize Design Thinking to encourage Maker/STEAM curriculum development
- Develop collaborative, hands-on, interdisciplinary, inquiry based, curriculum in which science, technology, art, and math concepts are applied to create solutions for real world problems
- Maker/STEAM curriculum to accommodate for individual learning differences.
- Adopt badges / portfolios so students can demonstrate competency/knowledge
- Instruction provides an environment in which failure as a part of the design process is understood as an opportunity to learn
- Research best practices across Maker/STEAM components
- Instruction is reflective, and allows for personalization, and choice

Outputs
- Curriculum encourages cross-sector learning opportunities, including interdisciplinary project-based learning and on and off-campus learning opportunities
- Curriculum is aligned to Maker/STEAM principles
- Curriculum encourages career exploration, academic advancement and internship opportunities with specific Maker/STEAM components
- Curriculum creates increased connections between and among departments and divisions with both formal and informal Maker/STEAM components
- Curriculum encourages individual students, student clubs and organizations, and faculty and staff to use Maker/STEAM projects and methodologies outside of the classroom and in the community
- Curriculum encourages social awareness and community involvement

Outcomes
- Increased participation of underserved student populations in Maker/STEAM learning opportunities
- Increased quality of Maker/STEAM learning opportunities through use of campus Makerspace and Maker partners in the community
- Increased faculty and community involvement and support of students’ pursuit of Maker/STEAM learning and opportunities
- Increased student capacity to apply Maker/STEAM skills and knowledge to novel and applied problems
- Increased understanding by students, faculty, staff, and community of Maker concepts and principles and the requirements and pathways to pursue STEAM careers
- Curriculum is addressed on an ongoing basis for both responsiveness and relevancy
- Life skills developed including teamwork, collaboration, entrepreneurship, and social awareness and community involvement

Situation
- High Poverty
- Low Graduation Rates
- Low literacy
- Cultural barriers
- Poor Course Completion
- Relative Absence of Business Partnership and Leadership
- Low Community Engagement
- Limited access to Tech
- No STEAM integration

Priorities
- 21st Century career preparation
- Certificate and Degree Completion
- Critical Thinking Skills
- Ability to Collaborate
- 4 Year College Transfer
- Quality Job Placement
- Meaningful Careers

Evaluation
- Badges and portfolio assessments of student competencies
- Makerspace participation (via curriculum changes) tracked using a comprehensive data system
- Student and faculty surveys that measure engagement, motivation and interest in Makerspace and STEAM learning
- Demonstrated curriculum alignment via new and/or modified curriculum that show integration of Maker/STEAM components
LOGIC MODEL: TRACK 3: THE MAKERSPACE
CREATE A ROBUST MAKER/STEAM ENVIRONMENT BOTH ON AND OFF CAMPUS THAT ENCOURAGES EDUCATORS, STUDENTS, AND COMMUNITY TO PARTICIPATE IN ACTIVE LEARNING IN DIVERSE SETTINGS

<table>
<thead>
<tr>
<th>Resources</th>
<th>SCC Makerspace Planning Team</th>
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<tbody>
<tr>
<td></td>
<td>Commitment for 2000 sq. ft. facility space on main campus</td>
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<td>Broad campus buy-in across most all sectors, departments, divisions, etc.</td>
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<tr>
<td></td>
<td>Financial, human capital and other supports to expand, connect and improve Maker/STEAM facilities</td>
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<tr>
<td></td>
<td>Financial support for Maker/STEAM professional development, teacher education, and co-teaching across sectors</td>
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<tr>
<td></td>
<td>Facility access which includes training, materials and resources for educators</td>
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<tr>
<td></td>
<td>Student access which includes training, activities, events, materials and resources for career pathways, internships, externships, and advanced academic placement opportunities</td>
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<td></td>
<td>Maker community to mentor and sponsor educator externships</td>
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| Activities | Design and implement main campus Makerspace – a proactive facility responsive to Maker/STEAM mission |
|            | Develop channels to optimize communication among all stakeholders, wherein faculty, staff, and students are used in decision making on Maker/STEAM development and resource needs |
|            | Create MOU with Hacker Lab for students and staff that encourages student success and increases career and entrepreneurship opportunities |
|            | Design/implement relevant, high-quality joint PD and co-teaching for educators across settings |
|            | Create awareness of Maker/STEAM events and facilities, including websites with calendar of events, social media, email campaigns, etc. |
|            | Develop lead Maker/STEAM ambassadors and practitioners (including faculty, staff, community, AND students) to provide program awareness, PD, training, and consultation across settings and in the community |

| Outputs | Makerspace and co-working facility operational with student, faculty, and staff engagement |
|         | Makerspace and co-working facility actively utilized for a variety of Maker/STEAM and student events and activities |
|         | Makerspace engages community with ample hours, calendar of events, trainings, and other activities based on Maker/STEAM |
|         | High quality PD and coaching support that is accessible to faculty from all departments and divisions, all sectors |
|         | Faculty from across campus engaged in joint PD, coaching and/or co-teaching at Makerspace |
|         | Increase in number of Makerspace ambassadors and practitioners working across sectors |
|         | Evidence of cross-sector connections among students, faculty, staff, and community |
|         | Increase in certifications and badges for students, faculty, staff |

| Outcomes | Engaged students with ability to think critically, collaborate on projects, and analyze information |
|          | Faculty in a variety of settings who can design and facilitate Maker/STEAM learning |
|          | New skills, outlook, knowledge and change in practice that students, faculty, and staff can apply in multiple settings |
|          | Educator and administrator attitudes across sectors support an integrated approach to Maker/STEAM practices |
|          | A campus and community experience supported by quality facilities and technology that promotes collaborative learning and working environments, multi-disciplinary work, and industry/governmental partnerships |
|          | Increased funding available from a diverse portfolio of resources |
|          | Expanded urban engagement in the Sacramento metropolitan area |
|          | Social engagement and better educated communities |

### Evaluation
- Documentation of PD participation
- Educator surveys on use and impact of Maker/STEAM components in their own practice
- Overall Makerspace participation tracked using a comprehensive data system
- Stakeholder feedback and Makerspace Advisory Board and Steering Committee oversight
- Number of educator certifications/badges and surveys on usage and participation

### Situation
- High Poverty
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- Education gaps
- Cultural barriers
- Poor Course Completion
- Relative Absence of Business Partnership and Leadership
- Low Community Engagement
- Limited access to Tech
- No STEAM integration

### Priorities
- 21st Century career preparation
- Certificate and Degree Completion
- Critical Thinking Skills
- Ability to Collaborate
- 4 Year College Transfer
- Quality Job Placement
- Meaningful Careers

### Focus
- Collect Data
- Implement Improvements
- Report and Communicate

### Collect Data
- Analyze and Interpret
- Focus
ENCOURAGE STUDENT EXPLORATION AND CREATE PATHWAYS TO FURTHER LEARNING, INTERNSHIPS, AND REWARDING CAREERS

**Situation**
- High Poverty
- Low Graduation Rates
- Low literacy
- Education gaps
- Cultural barriers
- Poor Course Completion
- Relative Absence of Business Partnership and Leadership
- Low Community Engagement
- Limited access to Tech
- No STEAM integration

**Priorities**
- 21st Century career preparation
- Certificate and Degree Completion
- Critical Thinking Skills
- Ability to Collaborate
- 4 Year College Transfer
- Quality Job Placement
- Meaningful Careers

**Resources**
- SCC Internship/Job Maker Program
- Scan of existing industry partnerships that fit with Maker/STEAM philosophies
- Creation of CTE/Maker/STEAM Internship Coordinator
- Availability of career-exploration and internship opportunities
- PD for CTE Faculty Liaisons for Industry Partnership Development
- Regional databases created to catalogue and identify Maker/STEAM opportunities
- Mechanisms for collaboration across region: K-12 and higher education, including regional industry
- Community-based Maker/STEAM mentors from business, higher education, and Maker/STEAM
- Informal Maker/STEAM learning
- Create awareness of alternative career pathways including entrepreneurship, freelancing, gig economies

**Activities**
- Increase opportunities for students to experience Maker/STEAM careers through internships, job shadows, and employment opportunities
- Creation of 50 internships along with additional job shadows, internships, and faculty externships created across the region utilizing our regional ecosystem partners
- Identify gaps and barriers to access
- Ensure that Maker/STEAM learning includes responsive information about regional career opportunities
- Actively engage both the private and public sectors in creating internships, job shadows, and other opportunities that take advantage of the presence of a Capitol Region Makerspace/STEAM alliance
- Institute standardization with badges/ portfolios so students can demonstrate competency/knowledge across sectors and industries
- Teach Maker/STEAM educators, counselors, staff, and advisors to provide support to students in navigating pathways

**Outputs**
- 21st Century career preparation
- Certificate and Degree Completion
- Critical Thinking and Soft Skills
- 50 paid Maker/STEAM internships
- Additional regional business opportunities
- Quality Job Placement
- Increased Maker/STEAM career awareness among students, educators, staff, and community
- Increased confidence of educators and staff in providing guidance to students on pursuing Maker/STEAM interests and preparing for Maker/STEAM careers
- Increased number of Maker/STEAM professionals mentoring students on career and education pathways
- Students experience Maker/STEAM careers through internships, job shadows, and employment
- Industry and sector acceptance of Maker/STEAM credentialing and program offerings including academic alternatives such as digital badging/portfolios

**Outcomes**
- Rewarding and meaningful careers, well-paying middle class incomes, ongoing professional development
- Educators, students, and community members collaboratively enhance students' capacity to create their own futures
- Increased number of students pursuing Maker/STEAM interests across settings and over time
- Increased understanding by all stakeholders of the pathways to pursue Maker/STEAM careers
- Increased self-identification of students as entrepreneurs, makers, and critical thinkers
- Increased number of students persisting along Maker/STEAM pathways and succeeding in postsecondary education and careers
- Increased number of students and all stakeholders in social awareness, community involvement, and civic awareness

**Evaluation**
- Evidence of Maker/STEAM digital badges/portfolios earned and accepted at job shadows, internships, and employment
- Number of students enrolled and progressing in Maker/STEAM pathways
- Educator, staff, and community/industry surveys on their knowledge of Maker/STEAM pathways, internships, employment
- Student surveys on their knowledge of Maker/STEAM pathways and requirements for further education and careers