
**STOCKTON UNIVERSITY
ANNUAL REPORT FOR
2020 INITIATIVES PROJECT**

PROJECT LEADER(S):	Peter Straub and Claudine Keenan
PROJECT TITLE:	Stockton STEM Collaborative: Pipelines to Success
DATE:	7/27/2017
CC:	

- *The boxes below expand as needed to accommodate your notes. You may also include/submit appendices or attachments, if needed.*
- *Email a copy of this completed form to Jessica Kay, Data Analyst & Assistant to the Chief Planning Officer at: jessica.kay@stockton.edu*

Please provide a summary of the project and your experience.

The Stockton STEM Collaborative was formed to promote cooperation between groups fostering Science Technology, Engineering and Mathematics (STEM) and STEAM (STEM with Arts) programs across Stockton University. Toward this end the project has recruited faculty associates, recruited a faculty fellow (David Furgione), funded and run a small STEM grants funding competition, funded a number of requested STEM events, developed a 3-D printer STEM makerspace, supported the Student Spaceflight Experiments Project, ARHU-STEAM events, Teen Tech, the Summer Enrichment Academy at Stockton, Tech Trek, the Jersey Shore Science Fair, and Stockton Center for Community Engagement K-12 Science field trips to Stockton.

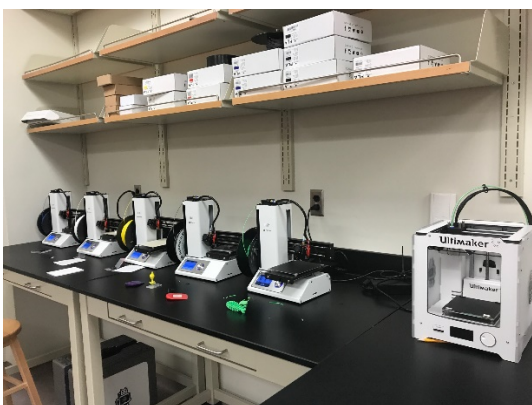
Please attach a copy of your original proposal or list your stated objectives and expected outcomes.

1. Promote collaboration and sharing of STEM/STEAM education resources across the University. (Foster an interactive environment among students, faculty, staff and community (ER3)).
2. Increase the number of K-college pathways to STEM education for underserved populations. (Increase opportunities for interactions between internal and external communities (ER4)).
3. Collaborate with Admissions, EOF and FRST to improve recruitment and retention of under-represented populations in STEM fields. (Establish Stockton as an integral part of the identity of students, faculty, staff, alumni, and community members (S3)).
4. Coordinate funding opportunities to maximize successful grant seeking. (Establish additional revenue sources (RS1-E)).
5. Cross-market existing Stockton STEM programs (e.g. SEAS and Tech Trek residential camps, ONR Sea Perch and the Jersey Shore Science fair). (Create mutually reinforcing intellectual and co-curricular experiences (S5)).

Please describe the results of your project and compare them to your original expectations.

Elaborate on how well your objectives were met and how they might have changed. Note any particular obstacles that may have prevented your achieving full satisfaction on desired outcomes.

The STEM Collaborative got off to a good start despite several hurdles. The first was identifying a faculty fellow. The initial proposal was funded after the deadline for a faculty fellow application to occur in FY16. A faculty fellow, David Furgione (Instructor of Biology part-time) was identified in Spring 2017 but was not slated to begin until Sept 1, 2017. Given that faculty fellow funding was available for FY 17, it was decided to develop an intensive pre-term project for the faculty fellow in Spring/summer 2017. David was tasked with setting up the 3-D printer maker space and developing curriculum and activities to use the instruments for the summer programs, including the SEAS experience, and to prepare for integrating this capability into Collaborative activities. So far he has done an amazing job of getting things up and running and adding this vital “engineering” component to our repertoire. Starting in Fall 2017 it is expected that David will also be able to work more closely with Collaborative members and NAMS staff to meet additional goals of the Collaborative including student recruitment and tracking, assessment and planning activities, particularly as they relate to recruitment and retention of underserved populations in STEM at Stockton.



STEM 3-D Printer /makerspace in USC.

Please list any follow-up actions (publications, presentation venues, etc.)

1. Several STEM Collaborative projects were featured in summer 2017- [Stockton Now](#): The Official Stockton University E-zine. Creating Pipelines to Success.
2. Produced Stockton STEM Collaborative branded logo items for distribution to K-12 partners- pencils, magnets (\$1000).
3. Outfitted a STEM maker space including five BuildTak IIP 3-D Printers (\$215 ea), an Ultimaker 2 Go 3-D (\$1200) and a ROBO- 3-d printer (\$800) as well as a selection of printing filaments for all types of applications. This space is in part of a Storage area of USC-1 suitable for training activities.
4. Assistance for 2017 Jersey Shore Science fair (in kind).
5. Assistance- Center for Community Engagement- Science days- K-12 science activities (in kind and logo items). Tara Luke.
6. Supported Stock-Hack Technology Innovation Event Robert Heinrich- Stockton IT. (\$500)
7. Supported- Atlantic County Sea Perch K-12 underwater robotics kickoff at the AC Aquarium. Tara Luke, Cheryl Vaughn-Jones: NAMS. Snacks. (\$61)
8. Supported Stockton STEAM- ARHU events, Allison Dell visit (Lisa Honnaker) (\$470).
9. Supported Service Learning STEM event- Hidden Figures viewing and discussion. Daniel Tome- Service Learning. (\$350)

10. Supported Student Spaceflight Experiments Program- student faculty travel to Washington D.C. conference (\$1500).
11. Grant Support- EYE-STEM-Underwater robotics program- Greater Egg Harbor Regional- Tara Luke (NAMS) (\$500)
12. Grant Support- EYE-STEM-Underwater robotics program- Greater Egg Harbor Regional- Norma Boakes (EDUC), (\$500).
13. Grant Support- EYE-STEM-Underwater robotics program- Greater Egg Harbor Regional- Brenna Baker (EDUC) (\$500).
14. Grant Support- STEM education: Neuroscience- Elizabeth Shobe (SOBL) (\$200)
15. Assistance for Stockton- AAUW Teen Tech workshop- 5/23/17 for 9th-11th grade young women. Joe Trout (NAMS) electronic parts (\$328.80)
16. Assistance for 2017 Science Enrichment Academy at Stockton- 2- week residential STEM experience for rising high school seniors with an emphasis on recruitment to STEM disciplines of underserved populations. Collaborative member Dawn Watkins (SOBL) was particularly helpful with recruitment again this year (in kind, 3-D printer lab).
17. Assistance for Tech Trek- Stockton/EDUC-AAUW-one- week residential STEM experience for middle school young women (in kind, lab support, collaborative member time).
18. Assistance -Yale University Bouchard Society undergraduate travel and research experience- Provost Diversity Initiative. (pledged support research mentoring for participants).
19. Grant identification-have discussed grant strategies for funding Student Spaceflight Experiments and other STEM programs with Collaborative members and outside funding agencies and partners.
20. Grants: The Math Science Partnership- Patty Weeks SRI/ETTC and Kim Lebak included the STEM Collaborative as partners on their successful grant to the department of education to provide training in next-gen science standards for the local K-12 community.

Are you recommending the continuation of this project? If so:

- **What are the next action steps you foresee or recommend?**
- **What are the expected budget requirements going forward?**
- **Please identify the program, department, or division to which the continuation proposal should be forwarded.**

[Note: continuation proposals must be approved and incorporated into the appropriate budget process.]

Recommending continuation of this project in FY18 and will spend part of this next year looking toward strategies to sustain the progress made so far.

FINANCES: Based on your proposal, please outline below how the award has been spent.		
	Amount	Notes/Comments
Beginning Budget Balance as of:	\$ 29000	FY17 (15K) FY 18 (13K)
Salary Expenditures		
• Stipends	\$ 6000	Intensive Pre-Planning/Furgione fellow
• Full-time staff salaries	\$	
• Full-time faculty salaries	\$	
• TES salaries	\$	
• Fringe Benefits	\$	
Total Salary and Fringe Expenditures	\$ 6000	
Non-Salary Expenditures (<i>supplies, travel, etc.</i>)		
• Educational supplies	\$ 7113.77	3-D printers, robotics, Neuroscience STEAM/STEM events.
• Other supplies	\$ 69.00	#D print filament
• subscriptions	\$ 208.22	Web support
• meetings and conferences	\$ 1500.00	SSEP national conference
•	\$	
•	\$	
Total Non-Salary Expenditures	\$ 8890.99	
Total Salary + Non-Salary Expenditures	\$ 14890.99	
Ending Budget Balance as of:	\$ 14109.01	

If there are remaining expenditures required to complete the project, please itemize them with expected amounts and timing for payment.

IMPORTANT: *Unused funds will revert to the general 2020 Initiative Fund at the end of the fiscal year if not approved and encumbered for project costs.*

Item	Expected Amount	Expected Timing for Payment
Stipend- faculty fellow fy18	6000	May 2018
Non salary FR18	7000	May 2018
Total	13000	