STOCKTON UNIVERSITY

2020 Initiatives Proposal Form

Thank you for your interest in submitting a proposal to the 2020 Initiatives process.

Please complete this form, save it to your hard drive, and then email a copy to: 2020@stockton.edu. Please copy your Dean/Director on the email. You will then be contacted by the appropriate 2020 Initiative Team representative/LEGS facilitators.

Proposals will be evaluated based on general criteria including the following:

- University-wide impact
- Clearly addressing one of the four LEGS themes from the 2020 strategic plan
- Specific budget details provided
- Realistic outcomes identified
- Assessment measures specified

Please consider the following questions as helpful prompts:

University-wide Objective(s)

- Does your proposal clearly address an issue relevant to your selected "primary strategic (LEGS) theme"?
- What specifically do you wish to accomplish with your project?
- How will Stockton, as a whole, benefit?

Expected Results

- How will you know if your project is a success?
- What are your anticipated outcomes and specific measurements for success?
- Does your proposal clearly indicate the person(s) or department(s) that will assume responsibility for the various work tasks?
- What is your project's "finish line"?

General Application Information	
Your Name	Dr. Susanne Moskalski
Your Email	susanne.moskalski@stockton.edu
Title of Project	Purchase of a Wave Flume for Public Engagement Events
Project Leader	Dr. Susanne Moskalski
LEGS Initiative Team Coach	Dr. Merydawilda Colon
Project Partner(s)	MARS program, Marine Field Station, Coastal Research Center, Coast Day Planning Committee
Duration / Time Frame of Project	6-1-2018 through 10-31-2018

Proposal Category (choose one: one-time or ongoing)			
One-Time Event or Activity		**Ongoing Event or Activity**	
☑	(A) $5,000 or less	☐	(C) $5,000 or less
☐	(B) More than $5,000	☐	(D) More than $5,000

Strategic Theme (choose one)	
☐	**Learning**
☑	**Engagement**
☐	**Global Perspectives**
☐	**Sustainability**

Strategic Objectives: choose one primary (P) in main theme and up to three secondary (S) In any themes

Learning			
S	Deliver high value-added learning experiences and promote scholarly activity (S1)	-	Reward scholarly applications (ER2)
-	Promote liberal arts ideal to develop lifelong learners (S2)	-	Establish additional revenue sources (RS1-L)
-	Strengthen internal processes to support learning (IP1-L)	-	Reduce expenses (RS2-L)
-	Develop faculty and staff skills to support learning (ER1-L)	-	Align resources to support strategic plan (RS3-L)

Engagement			
S	Establish Stockton as an integral part of the identity of students, faculty, staff, alumni, and community members (S3)	-	Foster an interactive environment among students, faculty, staff, and community (ER3)
-	Prepare students for active citizenship role (S4)	P	Increase opportunities for interactions between internal and external communities (ER4)
-	Create mutually reinforcing intellectual and co-curricular experiences (S5)	-	Establish additional revenue sources (RS1-E)
-	Strengthen internal processes to support engagement (IP1-E)	-	Reduce expenses (RS2-E)
-	Develop faculty and staff skills to support engagement (ER1-E)	-	Align resources to support the strategic plan (RS3-E)

Global Perspectives			
-	Develop a globally diverse Stockton community (S6)	-	Strengthen opportunities for global interaction among members of the Stockton community (ER5)
-	Enhance capacity to participate globally (S7)	-	Establish additional revenue sources (RS1-G)
-	Strengthen internal processes to support global education (IP1-G)	-	Reduce expenses (RS2-G)
-	Integrate global program efforts among multiple units of the university (IP2)	-	Align resources to support the strategic plan (RS3-G)
-	Develop faculty and staff skills to support global education (ER1-G)		

Sustainability			
-	Increase sustainable infrastructure (S8)	-	Develop and implement sustainability programs (IP5)
-	Enhance sustainability education and research (S9)	-	Develop faculty and staff skills to support sustainability (ER1-S)
-	Increase recognition as a model of sustainability (S10)	-	Reward sustainable practices (ER6)
-	Partner to promote global sustainability (S11)	-	Establish additional revenue sources (RS1-S)
-	Strengthen internal process to support sustainability (IP1-S)	-	Reduce expenses (RS2-S)
-	Prioritize sustainability in plan operations and residential life (IP3)	-	Align resources to support the strategic plan (RS3-S)
-	Promote sustainability across the curriculum (IP4)	-	Seek efficiencies through sustainable practices (RS4)

The tables below allow for summaries of about 350 words. Additional information can be included as an attachment.

Narrative Summary of Project
Please see attached document.

Assessment Plan: What are your anticipated outcomes and specific measurements for success?
Please see attached document.

Budget Summary						
	Item	**FY2018** July 1, 2017 – June 30, 2018	**FY2019** July 1, 2018 – June 30, 2019	**FY2020** July 1, 2019 – June 30, 2020	**FY2021** July 1, 2020 – June 30, 2021	**Notes/Comments** (stipends, supplies, hospitality, etc.)
1.	Wave flume tank acrylic ar	$ 2,500.00				CHPT manufacturin
2.	Dayton 2M171 variable DC	$ 625.00				Grainger.com
3.	Dayton 3XA78 right angle	$ 625.00				Grainger.com
4.	Motor wheel,	$ 150.00				MSCdirect.com
5.	Linkage arm, ball joint rod	$ 40.00				McMaster.com
6.	Scaffold and parts	$ 750.00				Scaffolding Depot
7.	Wood, right angle brackets	$ 40.00				Lowes
	Total	$ 4,730.00	$ 0.00	$ 0.00	$ 0.00	

* Please note: a proposal can only receive 2020 funding for two fiscal years.

Funding Questions		
Are you receiving any other University funding for this project?	No	
What department or academic school will your budget for this project reside in?	MARS	
Will you need funds for immediate use to begin your project?	○ **Yes**	◉ **No**
If so, how much?	**$**	
Date when funds will be needed	July 1 and ongoing.	

Supervisor Approval/Support	
Have you discussed your 2020 proposal with your supervisor, director, and/or dean and received their support?	We have discussed the project and the proposal with

* Please note: proposers who answer "no" to this question may be required to submit additional documentation in support of their 2020 application form.

CC: Dean/Director/Supervisor

2020 Initiative Spring 2018: Wave flume

Name: Dr. Susanne Moskalski

Email: susanne.moskalski@stockton.edu

Project title: Purchase of a Wave Flume for Public Engagement Events.

Project leader: Dr. Susanne Moskalski

LEGS Initiative Team coach: Dr. Merydawilda Colon

Project Partners: MARS program, Marine Field Station, Coastal Research Center, Coast Day Planning Committee.

Duration/Time frame of Project: 6-1-2018 through 10-31-2018

Proposal Category: One-time event or activity, $5,000 or less.

Project Info

Strategic Theme: Engagement.

Strategic Objectives:

Primary: Increase opportunities for interactions between internal and external communities (ER4).

Secondary: Establish Stockton as an integral part of the identity of students, faculty, staff, alumni, and community members (S3).

Secondary: Deliver high value-added learning experiences and promote scholarly activity (S1).

Narrative Summary of Project

The Marine Science Program (MARS) at Stockton University and the Marine Field station participate in a variety of public engagement and education events. The Marine Field Station has become a recognized cornerstone in the School of Natural Sciences and Mathematics (NAMS) concerning public education and interaction. The Marine Field Station staff also collaborates on projects with state agencies, educational organizations, and other higher education institutions. Examples of engagement and education projects and the institutions to which they were delivered include:

- *National Estuarine Research Reserve's (NERRS):* Professional development training programs for teachers and educators.

- *Primary Schools*: Cedar Creek High School, Galloway Township Middle School, Roland Rogers School, Pleasantville School, Collingswood Middle School, Cinnaminson High School, Port Republic School, the Noyes Museum, and Free to Be Daycare.
- *Teach at the Beach*, *New Jersey Marine Education Association (NJME*A): Instruction on water monitoring methods, using both low and high tech instruments.
- *Greater Egg Harbor Regional High System*: Professional development workshop sessions/field sessions.
- *Project PORTS* (Promoting Oyster Restoration through Schools), developed by Rutgers Haskins Shellfishery Laboratory. This is a community-based oyster restoration program which fosters stewardship through engagement with local schools. This program, already well-established in the Delaware Bay region, was tailored to the Great Bay Mullica River Estuary, and included a full day of lessons followed by an additional day of assembling shell bags for oyster settlement.
- *Ghost Pot Processing Day*: Following the completion of the removal phase, a community wide volunteer day is hosted at the field station to process the pots/debris. Students collect data from the crab pots to determine the length of time the pots were in the system, note evidence of by-catch, and record encrusting growth. Pots are sorted into re-usable vs. unusable categories and either cleaned and returned to their owners or dismantled and recycled.

These events allow MARS and Marine Field Station faculty and staff opportunities to educate the public about coastal science, to attract students to Stockton and the Marine Science program, and to communicate the content and value of the research that Stockton does in coastal and marine sciences.

Currently several faculty and staff members are planning a new public outreach event that will take place at the Atlantic City Gateway Campus in Fall 2018 in collaboration with the Stockton Center for Community Engagement. The new event will be called Atlantic City Coast Day, and it will be a forum for people in and around Atlantic City to learn about the coast, see what Stockton University is doing in and for Atlantic City, and connect with university and government people doing scientific research, planning, policy and law development, engineering, and other activities that relate to the coast.

All future public engagement activities conducted by MARS and the Marine Field Station would be enhanced by purchasing demonstration equipment that can be used to educate the public about coastal and marine processes, and expand research and education activities. One important process to demonstrate for the people of coastal New Jersey is the behavior of ocean waves at the shoreline and the erosion and redistribution of sediments by waves. Wave erosion is one of several important and recurring hazards that affect the Atlantic City beaches and nearby shore communities. The ability to

demonstrate these processes in a small scale would be beneficial to the general public and enhance Stockton's reputation as a repository of knowledge about marine sciences.

The purpose of this proposal is to fund the construction of a wave flume for education and outreach activities. A wave flume is a long tank of water with a motorized paddle at one end. The paddle generates waves of various heights and periods that propagate to the other end of the flume. Scale models of coastal sediments and infrastructure can be placed at the far end to test the impacts from varying wave conditions. Users manipulate the wave behavior by adjusting the motor, and observe impacts at the coast. The wave flume will be used for public engagement purposes by the Marine Field Station and the Marine Science Program at public events such as Open House, Teach at the Beach, and Atlantic City Coast Day. Other possible venues for using the flume include the Stockton STEM Collaborative, AAUW Tech Trek and Tween Tech, and the SEAS summer camp, all of which are held at Stockton and reach K-12 audiences. Our model will replicate a wave flume acquired by the University of Delaware (https://sites.udel.edu/jpuleo/wave-flume-specs/). It is made of ¾ inch acrylic in two sections for portability, and supported by a scaffold. It is 16 feet long, 13 inches tall, and 4.25 inches wide. A similar flume would meet our needs very well.

The initial activity funded by this grant will be the purchase of materials and fabrication services to build the flume. After the flume is built it will be kept at the Marine Field Station and transported to educational events as needed. The flume will be used in public education displays and demonstrations about coastal processes and in Stockton University's coastal research and education. The flume will be set up to display the effects of waves on coastal sediments and infrastructure. It will also be used in classes to teach students about waves, coastal erosion and sediment redistribution, and related topics. The wave flume will be used by the Marine Science program, and it could also be used in interprogram collaboration with the School of Education. Stockton as a whole will benefit from the increased attention to our coastal and marine research and a subsequent rise in our regional reputation.

Assessment Plan

The main anticipated outcome for this project is to have a working wave flume that can be transported for public outreach and education, and Stockton classes. This part of the project will be considered a success if the flume is functional for Atlantic City Coast Day. The acquisition and construction part of the project will be coordinated by Dr. Susanne Moskalski with the support of Marine Field Station personnel and Coast Day Committee members as needed.

The longer-term anticipated outcome is that the flume will be used regularly in a variety of ways, including but not limited to Atlantic City Coast Day, Open Houses, and Marine Field Station outreach. The flume will be available for Stockton faculty and staff to use, and use will be encouraged by advertising. The flume will be introduced to Stockton personnel by email, and demonstrations will be scheduled for interested faculty and staff during the Fall 2018 semester. For Coast Day and subsequent uses, Dr. Moskalski or Marine Field Station personnel will schedule flume usage. Users will be responsible for arranging to have knowledgeable interpreters present. Transportation will be coordinated between users and Dr. Moskalski/Field Station on a case-by-case basis. This aspect of the project will be deemed a success if the flume is used for more events than just Atlantic City Coast Day.

The educational success of the wave flume will be assessed at public outreach events with surveys designed to determine the impact of the flume on observers' engagement with and understanding of coastal marine science. Assessment of the success of the flume in classes will be determined by student scores on an assessment quiz delivered before and after the flume is used in a lab or lecture demonstration. Details of the survey type and questions will be determined separately for each use or demonstration.

Budget Summary

Item	**Where bought**	**Approx. cost**
Wave Flume	CHPT manufacturing, Georgetown, DE	$2500
Speed Control: Dayton 2M171 Variable DC Speed Control	Zorotools	$625
DC Motor: Dayton 3XA78 Right Angle Gearmotor	Drillspot.com	$625
Motor Wheel: 8" diameter 3/8" aluminum plate w/ collar.	Mscdirect.com	$150
Linkage arm: 9" of ½" diameter metal tubing.	Mcmaster.com	$20
Ball joint rod ends: 5/16" thread with ¼" opening.	Mcmaster.com	$20
Scaffold	Scaffolding depot	$750
Wood	Lowes	$25
Right angle brackets	Lowes	$5
Pin striping tape	PepBoys	$10
Total		**$4370**

**Note that if another vendor would charge less for the same part, we will use that vendor and the total cost will be lower.

Funding questions

Are you receiving any other University funding for this project? No.

What department or academic school will your budget for this project reside in? MARS.

Will you need funds for immediate use to begin your project? No.

If so, how much? n/a

Date when funds will be needed: July 1 and ongoing, as parts are ordered.

Supervisor Approval/Support

Have you discussed this proposal with your supervisor? Yes

Explain: We have discussed the project and the proposal with Dean Straub, and also with Gordan Grguric (MARS program coordinator) and Steve Evert (Field Station manager) and received support from each of them.