ECST Acceleration Initiative ASI Partnership/Funding Proposal

Objective of ECST Acceleration Initiatives:
ECST offers a range of programs to recruit and support students as they begin their ECST journey, with the goal of preparing them to successfully complete their degrees and speed ahead into their STEM career.

Project Descriptions and Partnership Objectives:

First Year Experience at ECST (FYrE@ECST
FYrE@ECST is a first-year experience program for incoming freshman in the College of Engineering, Computer Science, and Technology. FYrE@ECST will engage first-time freshmen in the ECST community through (1) STEP, a pre-freshman summer bridge program to prepare them to start the Calculus sequence in their first year, a critical factor for on-time graduation from engineering and computer science programs; (2) Introduction to Engineering and Technology, a new 3-unit first-year engineering and technology course with hands-on design projects; (3) Mathemagics, a discovery-based learning workshop designed to improve critical thinking skills by conducting experiments which help students relate theoretical math and physics concepts to physical reality; and (4) Supplemental Instruction workshops, which are peer-facilitated workshops to also enhance our students' critical thinking in math and physics. All of these components will be integrated through a new comprehensive developmental advisement plan (MyGoldenEagle Flight Plan, or GEFP). The GEFP will tie together targeted milestones of the students' academics, career development, and community engagement into one integrated first year experience to help our students better navigate through their college education and develop their identity as engineers.

Partnership Objectives: FYrE@ECST will foster students to take on ECST's motto to "Commit to Excellence. Engage in Community." To create a sense of community among the FYrE@ECST student cohort a t-shirt design contest will be carried out among the students to showcase their creativity and Cal State LA ECST spirit and pride. The winning design will be announced at FYrE pizza & ice cream social and will be used as t-shirt design for the entire FYrE@ECST cohort.

Budget Narrative for FYrE@ ECST
T-shirts
$6.00 X 75=$450.00
Total T-shirt Cost=$450.00

Pizza and Ice Cream Social
$12.00 X 75= $900
Total of Pizza and Ice Cream Social= $900

Total FYrE@ECST Cost=$1,350.00

ECST Open House in Partnership with Boeing: ECST Student Leaders
ECST to provide prospective students with a closer look of the College of ECST; expose them to the various opportunities available in the fields of engineering, computer science, and technology; and engage them in various interactive opportunities with professionals from the Boeing Company.

Partnership Objectives: ECST students will serve as role models to middle and high school students from the Mathematics, Engineering Science Achievement (MESA) Schools Program (MSP) who come to campus for college and career exploration during ECST Open House in Partnership with Boeing. ECST students provide leadership roles in the different activities and workshops that are facilitated by ECST faculty, staff, or Boeing professional engineers. In addition ECST students have the opportunity to network and grow their interpersonal and leadership skills as they assist throughout the duration of the program. To create a sense Cal State LA school spirit and pride an ECST volunteer t-shirt would be purchased to showcase our ECST student volunteers to our prospective Cal State LA students but also highlight them to our industry partner, Boeing. Cal State LA pom pom's also will be distributed to attendees to create a sense of belonging to Cal State LA from the pre-college students to our ECST students, faculty, and staff onto our industry partner Boeing volunteers. They will have something to take home and remember their time at Cal State LA!

Budget Narrative for ECST Open House in Partnership with Boeing:

Student Leader Trainings lunches prior to event
150 X $7.00=$1050.00

ECST Open House in Partnership with Boeing
150 ECST Student Leaders X $15.00 food (breakfast and lunch)= $2,250
Total food costs: $3,300

ECST Student Volunteer T-shirts
150 X $6.00 per t-shirt=$900
Total T-shirt Cost: $900

Cal State LA Pom Pom's
500 X $1.00 =$500.00
Total Pom Pom Costs: $500.00

Total ECST Open House in Partnership with Boeing Cost: $4,700.00

Summer Transition to ECST Program (STEP)
The purpose of STEP is to prepare Pre-Engineering, Pre-Computer Science, and Technology incoming freshmen to be successful in their course of study at Cal State LA by facilitating the transition from high school to college, reinforcing and/or developing math skills necessary to meet ECST major requirements, and building community. Students meet other students in their college, connect with ECST student organizations, obtain general information about the campus, and begin their relationship with their academic advisors and faculty.

Partnership Objectives: STEP is a transition program that not only focuses on their academic progress but to strengthen their sense of community. To do so we would provide students and their Supplemental Instructional (SI) Leads (Current ECST students who work as SI Leads) a STEP t-shirt to increase their sense of pride and community here at Cal State LA. To introduce STEP students to the ECST student organizations and projects a STEP ECST Student Project and Organizations luncheon will be hosted.

Budget Narrative for STEP

STEP T-shirts for students and SI leads
300 X $6.00=$1,800.00
Total STEP t-shirt Cost= $1,800

STEP ECST Student Projects and Organizations Luncheon
400 X 7.5= $3,100.00
Total Food Cost-$3,100

Total STEP Costs= $4,900.00

LAunchPad Summer Program
A two-week summer program for rising high school female seniors teaching them how different engineering and computer tools work together to make the world a better place. They work on various hands-on labs and projects to learn about electrical, mechanical, civil engineering and computer science.

Partnership Objectives: ECST undergrad and grad students have an opportunity to get professional development from faculty in electrical, mechanical, civil, and computer science departments as they work as student technical assistants. The ECST student technical assistants work directly with faculty with developing and facilitating curriculum that reinforces engineering and computer science concepts to rising senior female students that introduces them to these fields to develop or strengthen their interest in pursuing these fields of study. At this time ECST has 15 % female students and the goal is to increase that to 25% female students by 2025.

Budget Narrative for LAunchPad Summer Program

ECST Student Technical Assistants

$16.00 per hour X 50 hours per student=$800
Benefits:
$800 X 15%=$120
Total Salary and Benefits per student technical assistant= $920
Five total student technical assistants= $4,600

Total LAunchpad Summer Program Costs=$4,600

GRAND TOTAL COSTS: $15,550.00

Timeline:

Date	Activity	Responsible
July 2019	FyRE@ECST cohort is established for Fall Semester from STEP 2018 students starting in Calculus 1	ESSC FyRE@ECST Academic Advisor
August 2019	FyRE cohort start Fall Semester	ESSC FyRE@ECST Academic Advisor
October 2019	ECST Open House in Partnership with Boeing	MESA Director and Boeing Planning Team
March 2020	LAunchPad applications are distributed to MESA and local High Schools to nominate 5 rising females interested in STEM fields.	ECST Outreach, Director
April 2020	STEP introduced to prospective incoming first time ECST freshmen at Cal State LA Preview Day. Start of STEP student registration.	ECST Student Success Center, Director
May 2020	STEP Student Registration and LAunchpad Applications are due.	ECST Student Success Center, Director & ECST Outreach, Director
June 2020	STEP Starts at Cal State LA and LAunchpad acceptance letters sent to awarded applicants.	ECST Student Success Center, Director
July 2020	LaunchPad Starts at Cal State LA and STEP ECST Leadership Luncheon	ECST Outreach Director and ESSC Academic Advisors