STEM Challenge 2018 – Follow Up

The Bridges to STEM Careers (BSC) and Pathways to STEM Careers (PSC) programs, with funding from the National Science Foundation and the Department of Education, hosted the annual STEM Challenge on April 7th 2018 in the Student Services Building at UHCL. This year, we had the biggest turn out yet, with 32 teams and 127 students registering for the event. The students participated in the competition at two categories: programming and science. Winners and participants won prizes including scholarships, internships, CanaKit Raspberry Pi 3 Ultimate Starter Kit, Texas Instruments TI-84 Plus Graphics Calculators, Google Home Minis and various other gifts.

The UHCL Alumni Association, Esyntaxis, and Flow-Cal Inc. provided sponsorships for STEM Challenge 2018. AtLink Communications Inc. and Tietronix Software Inc. provided internships. Panera Bread generously donated breakfast. Freebirds Inc. provided lunch at a concession rate. Various other companies and restaurants in the community provided additional support. Faculty members from community colleges, high schools and UHCL participated actively and served as judges, mentors and in various other capacities. Industry representatives from Flow-Cal, AtLink and Tietronix also served as judges.

The challenge was open to all high school and undergraduate students. Students from 9 high schools, 4 community colleges and 2 universities participated in the event. It consisted of two pathways of competition, with teams displaying their capabilities in several areas ranging from logic & analysis, engineering design, math, science and software design abilities. A total of 32 teams (17 programming pathway teams and 15 science pathway teams) registered for the event. Each team consisted of a maximum of 4 members.

All challenges were taken from and inspired by STEM subjects, and were designed in a way that allowed students to participate and succeed. The goals of the STEM Challenge were manifold: from encouraging students to try STEM fields, to recognizing that STEM fields can be fun, to taking away the fear of failure in a STEM field.
In the Science category, the overall winners were **CBHS Wolverines 3** team comprising of students Muhammad Zain, Viet Bui, Mark Logan and Nathan Michael from Clear Brook High School, and each contestant went home with a $500 scholarship to UHCL along with Texas Instruments TI-84 Plus Graphics Calculators. In the Programming category, Team **DAWJ**, comprising of students Arunan Thiviyanathan, Dean Zhou, Joey Muffoletto, and William Zhang of Clear Lake High School were the overall winners, and each team member received $500 scholarship to UHCL, along with CanaKit Raspberry Pi 3 Ultimate Starter Kits.

Team **DHS Broncos Too**, comprising of Blake Martin, Hillary Waterstreet, Andrew Hicks, and Makenna Nugent from Dayton High School were awarded the Station Master status in the Logic & Analysis Challenge. Jonathan Goodman, Jesse Lira, Christopher Webb, and Matthew Browder of team [insert-witty-name-here] from UHCL, won the Station Master status for the Software Design Challenge. In the Science Challenge, Connor Marsh, Vijay Joshi, Samir Cayenne, and Harrison Mooney of team **Knights of the Night** from Clear Springs High School won Station Master Status. Team **C.A.R.L** consisting of Pasadena Memorial High School students Ryan Shugart, Alexander Moyeda, Laura Mata, and Christopher Perez were the Station Master winners of the Engineering Design Challenge. Each of these winners received $300 scholarship to UHCL and a Google Home Mini.

Representatives from AtLinks Inc. and Tietronix Software Inc. watched the teams and mentors as they participated in the challenges and at the end of the event, identified students that they liked to intern in their company. Tietronix invited Matthew Browder (UHCL), Arunan Thiviyanathan (CLHS), Dean Zhou (CLHS), Sharmin Nipa (UHCL) and Daniel Abreo (SJC South) to interview for internship positions, and AtLinks offered summer internships to Nathan Dill, Daniel Mina, Peter Banfield, Stephanie Zendejo, and Kasra Ghodsi, all from UHCL.

Thanks to several departments at UHCL and area restaurants and vendors, participants won various gift cards as door prizes. Participants also each received a t-shirt, pens and notepads.

The STEM challenge was organized by the Bridges to STEM Careers program – A partnership with the University of Houston Clear-Lake and San Jacinto College and supported by the National Science Foundation and partially supported by the Pathway to STEM Careers (PSC) STEM grant from US Department of Education.