华夏糖城 STEM

2021 Fall Schedule Start 08/07/2021

STEM Program (Technology/Engineering) Class Start: 08/07/2021

8:30-10:00	10:00-11:30	11:30-1:00	1:30-3:00	3:00-4:30	4:30-6:00
Codeing &Technology 2 (Face to Face only)	Robotics Programming & Mechanical Engineering (Face to Face Only)	Coading & Technology 1 (Face to Face only)	Python CS1/GD1 Hybrid(Face to Face & Online)	Python CS2/GD 2 Hybrid(Face to Face & Online)	Robotics Programming & Mechanical Engineering Hybrid(Face to Face & Online)

Over $115K in Grant Awards

Richard Embrick

2018 NSTA & Shell Oil National Award Winner!

11+ Years in STEM Engineering / Science

Winner of Five (5) State Teaching Awards

2016 FBISD Secondary Teacher of the Year

- 2019-22 NSTA & Shell Oil Science Teaching Award National Judge
- 2019-20 TEA Educator Advisory Committee—HB3 teacher incentive
- 2017-20 H.E.B Excellence in Education Teaching Award State Regional Judge
- 2017-20 FBISD Secondary Teacher of the Year Selection Committee Judge
- 2017-20 Teacher Forum Leadership Council Co-Chair and Past President
- 2017-Present FBISD STEM/Robotics Facilitator and Department Head
- 2013-Present PLTW Gateway to Technology, Robotics & Engineering I & II

2018 Carnegie Mellon Robotics Academy Certification
2014 & 2015 PLTW: Gateway to Technology Certifications (240hours)
2013 AVID, GT, and Texas Regional for Excellence in Science and Mathematics Mentoring
2011 ESL, SIOP (Sheltered Instruction Observation Protocol) Certifications

Founder STEMbrick Academy
FBISD Robotics & Engineering I & II

Texas Computer Education Association (TCEA)
Science Teacher Association of Texas (STAT)
Texas Medical Association (TMA)
National Science Teaching Association (NSTA)
Association of Texas Professional Educators (ATPE)

"tell me and I forget, teach me and I may remember, involve me and I learn."

Benjamin Franklin

Daniel Doremus

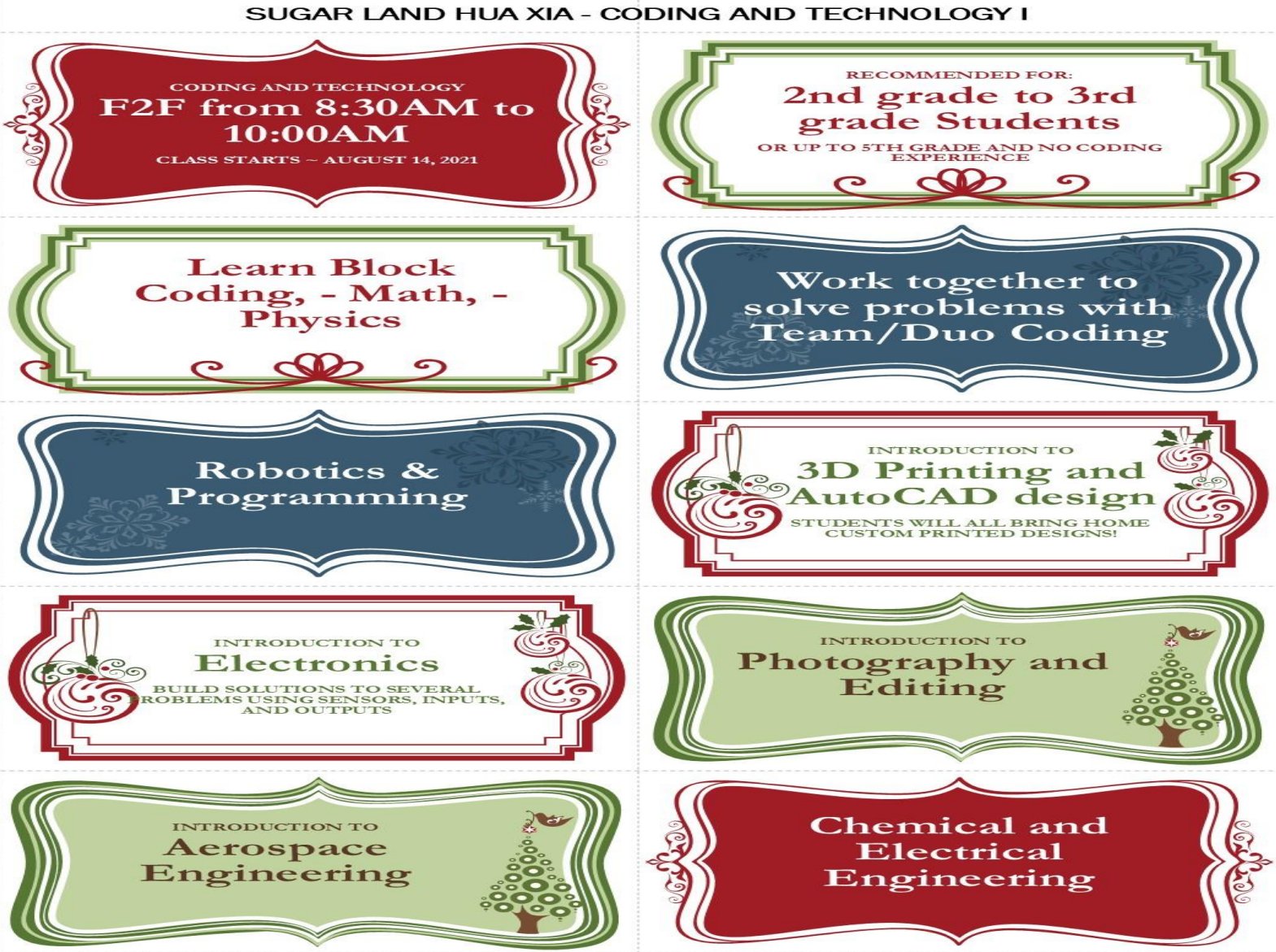
Educator since 1990 with degree from Texas A&M University Mathematical Sciences

Taught Multiple levels: 6th, 7th, 8th grade Math both regular and Pre-AP, Algebra 1, Geometry, Algebra 2, Pre-Calculus, SAT/ACT Preparation Courses, Project Lead the Way: Gateway to Technology Certifications: Design & Modeling, Automation & Robotics, Magic of Electrons, Science of Technology, Green Energy, Energy & Environment, Flight & Space, Medical Detective.

Robotics and Coding Club Sponsor, Math Counts Sponsor, NJHS Sponsor

Entrepreneur – Former Owner of Huntington Learning Center 1996 – 2010

Coding and Technology 1
F2F 8:30-10:00



Robotics Programming & Mechanical Engineering

Our Flagship Robotics course offers students a chance to design, build, and program autonomous machines using 3 different Robotics Platforms.

Students will explore and solve NASA inspired Missions.

F2F ONLY

10:00AM to 11:30PM

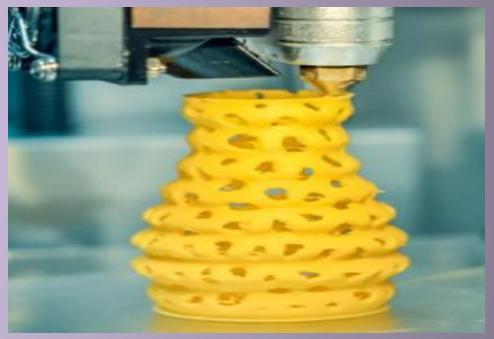
Opportunity for Carnegie Mellon Certification are available for advanced students

Students learn and explore various Sensors, Motors, Servos, Wiring Mgmt, Reverse Engineering, 13 Mechanisms such as Worm & Wheel, Leadscrew, and others in addition to programming.

Coding and Technology 2

Saturdays: 11:30 pm. – 01:00 pm.

The experience continues for students who have completed Coding and Technology 1 as we expand the skills on Robotics coding and new ventures they have not seen before. The world of Virtual Reality will come to life as students become emersed in practices only provided in this unique course.



The class will cover the following during this course: 3D printing & Design II, the Internet of Things, Electrical Engineering topics, Chemical Engineering topics, Robotics & Programming II, VR, and the students will have the opportunity to enter competitions.

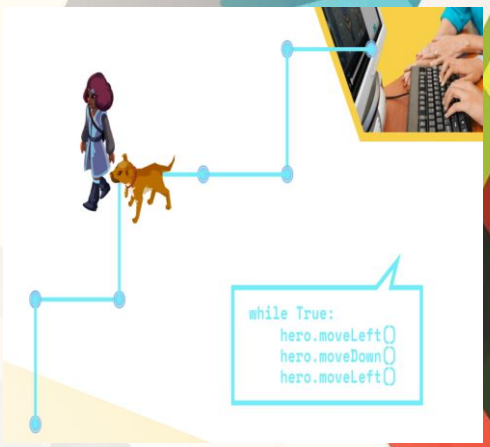
Python computer science & game design I

Hybrid – F2F or Online

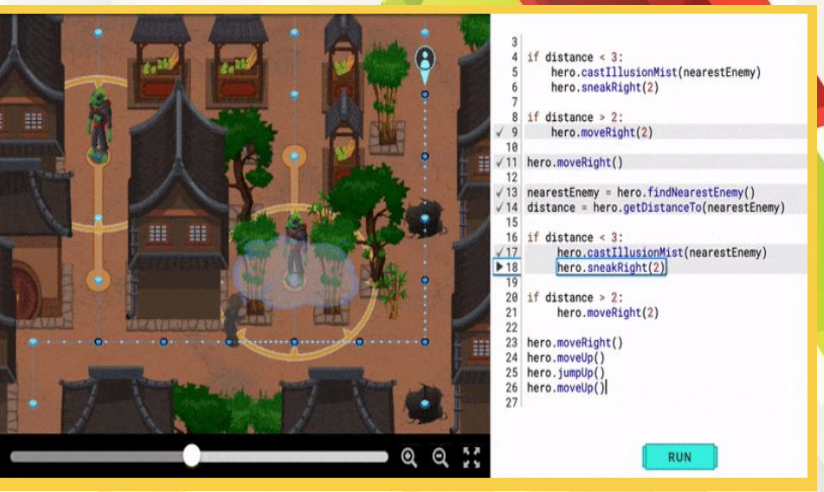
01:30-03:00AM

recommended 4th grade or higher.

No experience required.



Computer Science that Captivates
A coding adventure for students.
An introduction to Python programming.



Coaches can monitor student progress on an ongoing basis, get valuable information on their performance, and immediately identify whether interventions are needed.

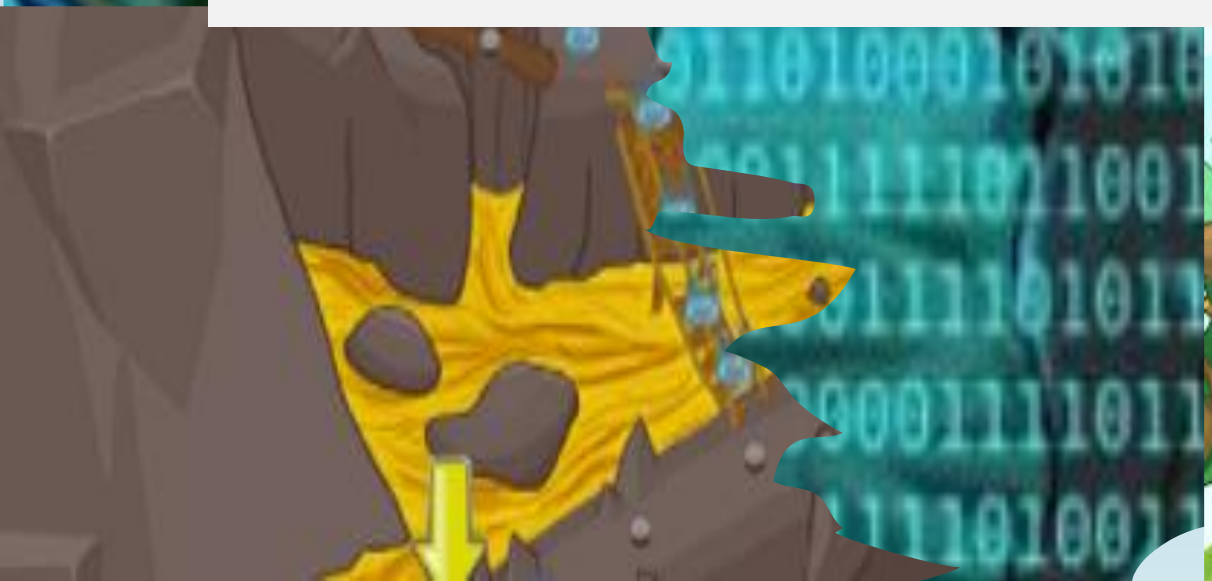
PYTHON FOR GAME DEVELOPMENT 2

Saturday 3:00 – 4:30

HYBRID Course F2F or Online Options

In this project base approach to Python, your child will gain the skills needed to create a multi-level game that will be as challenging as their imagination takes them.

**** Students who enroll in this program will have the opportunity to compete in local and national competitions through this course.**



```
else if (steering < -100)
    steering = -100;
if (steering > 0 && !isLeft)
    factor = (1 - steering / 50.0);
else if (steering < 0 && isLeft)
    factor = (steering / 50.0 + 1);
return (int)(factor * speed * 7.2);
```

Virtual Robotic Hybrid

4:30 – 6:00 p.m.

Face to Face & Online

In our Virtual Robotic Hybrid course students will experience multiple platforms to program robots. The goal of the course is to transition students from block coding to python line coding of these amazing online robots. These simulation platforms put students in realistic situations requiring a mastery of coding skills for success.

These skills can be applied to opportunities to compete in competition against other students locally and nationally.