

Why Advanced STEAM?

STEAM I has been a successful course, leading students to request an advanced option.

Increased enrollment in STEAM		
2020-21	68	
2021-22	124	
2022-23	173	



A robust STEAM course progression will attract families considering enrolling in TCUSD schools.

The goal of the Advanced STEAM course is to expose students :

to concepts that can be further pursued in high school.

Course Overview

Pre-Requisite: STEAM I and Algebra I (completed or currently enrolled)

: Students will engage in challenging STEAM tasks to build problem-solving skills. Units include advanced robotics with Python programming, drafting, building, and testing balsa wood bridges, : using physics knowledge to build and test Rube : Goldberg machines, and using advanced AutoCAD skills for 3D printing.

Advanced STEAM Units

One Semester Course (20 weeks)

Unit 1: Advanced Robotics using Python programming
Unit 2: 3D Printing: Create complex models
Unit 3: Design, Draft, Construct, and Test balsa wood bridges
Unit 4: Rocketry: Build and launch model rockets
Unit 5: Build and film Rube Goldberg machines
Unit 6: Reverse Engineering







Advanced STEAM Program Cost

Unit	Expected Cost
Advanced Robotics using Python programming	\$1,000 Additional robot kits (one time cost)
3D Printing	\$500 for additional filament
Bridge Building	\$700
Rocketry	\$800
Rube Goldberg	\$0
Reverse Engineering	\$300
TOTAL	Approximately \$3,300 (Paid out of Site Funds)

Thank you!











Questions?