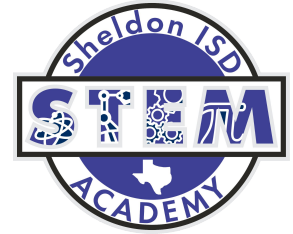


# C. E. King High School STEM Academy



"Greatness STEMs from Here"



# What is STEM and Why STEM?

**STEM** (**Science**, **Technology**, **Engineering**, and **Mathematics**)

education is a method of **hands-on** teaching and **learning** where students learn to apply academic content **by creatively solving real-world problems** with **innovative design**-based thinking to prepare students for future career opportunities.

According to the Bureau of Labor and Statistics, In the next 10 years, it's estimated that there will be over **821,300 STEM job openings.**

As of 2021, **STEM** occupations average annual **salaries** were **\$100,900** compared with \$55,260 for non-STEM occupations.



# Why is the Sheldon STEM Program different?

## SKILLS

Students will continue to **develop essential 21st century and employable skills.** Students will grow in the areas of collaboration, communication, creativity and most importantly critical thinking.

Students will continue to be challenged to think in ways that inspire, encourage, innovate and will/can change the community and world.

## Opportunities

Students will have **access** to:

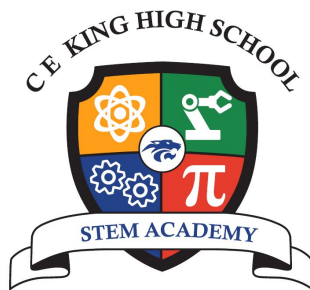
- 5 Programs of Study
- FREE College
- Support systems
- Mentorships/STEM Clubs
- Internship Opportunities
- Scholarship Opportunities
- Community Partnerships
- All PreAP/AP Courses
- Industry Based Certifications
- STEM Field Trips

## Students will receive a distinguishable STEM Culture

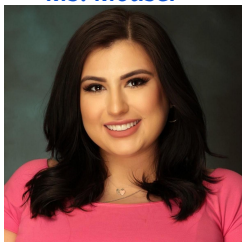
in high school, that was cultivated in our entire academy ecosystem. Our STEM educators are like none anywhere else. STEM students will form strong bonds, be held accountable, grow, be challenged and will flourish in all area of their high school experience. Our STEM educators collectively continue to perform high on our district/state assessments.



**STEM Academy Principal**  
**Ms. Mouser**



**STEM Academy Counselor**  
**Ms. Jones**



**STEM Algebra & Geometry**  
**Ms. Sifuentes**



**STEM English I**  
**Ms. Raven**



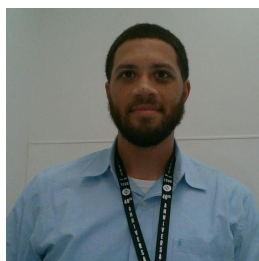
**STEM World Geography**  
**Mr. Arceneaux**



**STEM Biology/Biomed 3**  
**Mr. Mustain**



**STEM English II**  
**Ms. Ward**



**STEM Algebra II & III**  
**Mr. Hamilton**



**STEM Chemistry and  
Physics**  
**Ms. Webb**



**STEM Biology/Biomed 1 & 2**  
**Ms. Scoppa**



**\*\*All STEM students must choose one of the following STEM areas to focus on\*\***

# Programs of Study Available

- ★ **Biomedical Science**
- ★ **Computer Science**
- ★ **Engineering**
- ★ **Advanced Math**
- ★ **Advanced Science**



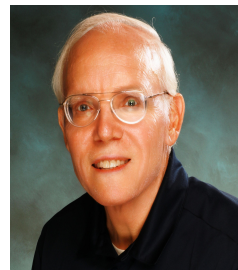
**BioMed**  
**Dr. Scoppa**



**Computer Science**  
**Dr. Whiteley**



**Engineering**  
**Ms. Simpson**



**Engineering**  
**Mr. Netherland**



# Biomedical Science

## What courses will I take?

**Yr 1-** Principles of Biomedical Science

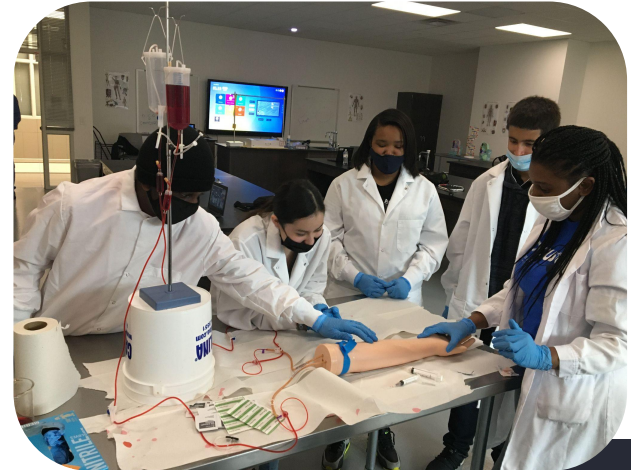
**Yr 2-** Human Body Systems

**Yr 3-** Medical Interventions

**Yr 4-** Biomedical Innovation

## Possible Careers:

- \*Medicine
- \*Dentistry
- \*Forensics
- \*Biomedical Engineer
- \*Public Health
- \*Environmental Science
- \*Veterinarian
- \*Medical Research





# Computer Science



## What courses will I take?

**Yr 1**-Fundamentals of Computer Science

**Yr 2**-AP Computer Science Principles

**Yr 3**-AP Computer Science

**Yr 4**-Practicum in Information Technology

## Possible Careers:

- \*Cybersecurity
- \*Software Developer
- \*Video Game Designer
- \*Software Engineer
- \*Web Developer
- \*Computer Systems Analyst

## Highlights:

- \*Prepare for and take the AP Computer Science Principles exam for college credit.



# Engineering

## What courses will I take?

**Yr 1**-Intro. To Engineering Design

**Yr 2**- Principles of Engineering

**Yr 3**-Engineering Design & Development

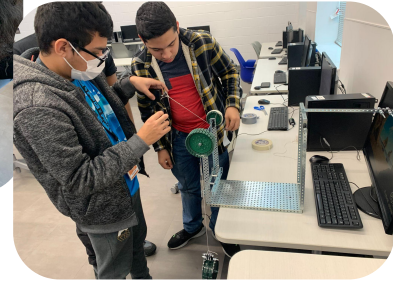
**Yr 4**-Practicum in STEM

## Possible Careers:

- \*Mechanical Engineer
- \*Chemical Engineer
- \*Civil Engineer
- \*Aerospace Engineer
- \*Industrial Engineer
- \*Environmental Engineer

## Highlights:

- Robotics
- Drones
- Drone Certification





# Advanced Math

## What courses will I take?

**Yr 1**- Algebra I

**Yr 2**- Geometry & Algebra II

**Yr 3**-Algebra III or College Algebra

**Yr 4**- College Algebra or Pre-Calculus/Calculus

## Possible careers:

- Statistician
- Meteorologist
- Civil Engineer
- Computer Scientist
- Actuaries
- Computer and Information Research Scientist







# Advanced Science

## What courses will I take?

**Yr 1**- Biology

**Yr 2**- Chemistry & AP Biology

**Yr 3**-Physics

**Yr 4**- Advanced Science Options

## Possible careers:

- Biotechnology
- Biological Science
- Aviation
- Veterinary Science
- Physics and Nanotechnology
- Forensic science





# Free College/Endorsements/Industry Certifications



## College Credits Offered

STEM students can graduate with 15-45+ college credit hours. ([Free](#))

\*Dual Credit classes start 11th grade year.

SAN JACINTO  
COLLEGE

NORTH CAMPUS

## Programs of Study Available

- Computer Science/Cybersecurity
- Engineering
- Biomedical Science
- Advanced Math
- Advanced Science

## Industry Certifications

- UAV Pilot- Drone Pilot (median pay in Texas \$81,479/yr or \$250+/hr)
- Phlebotomy Tech (\$36,320/yr or \$19/hr)
- Biotechnician (\$72,335+/yr or \$35/hr)

Free  
College

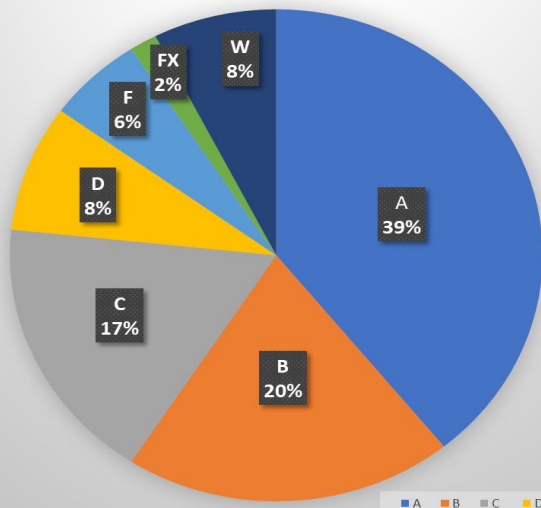


# Sheldon STEM College Students

Fall 2022  
STEM  
student  
data  
from  
San Jac



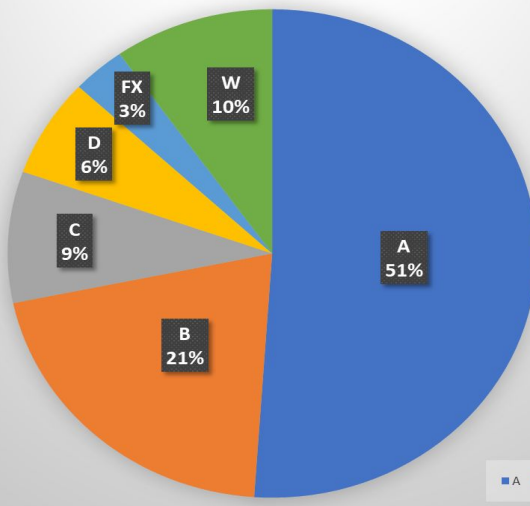
Grades Earned Fall 2022 SJC Juniors



78%

Earned A, B, and C's

Grades Earned Fall 2022 SJ Seniors



81%

Earned A, B, and C's

SAN JACINTO  
COLLEGE

NORTH CAMPUS

552  
Credit Hours Earned

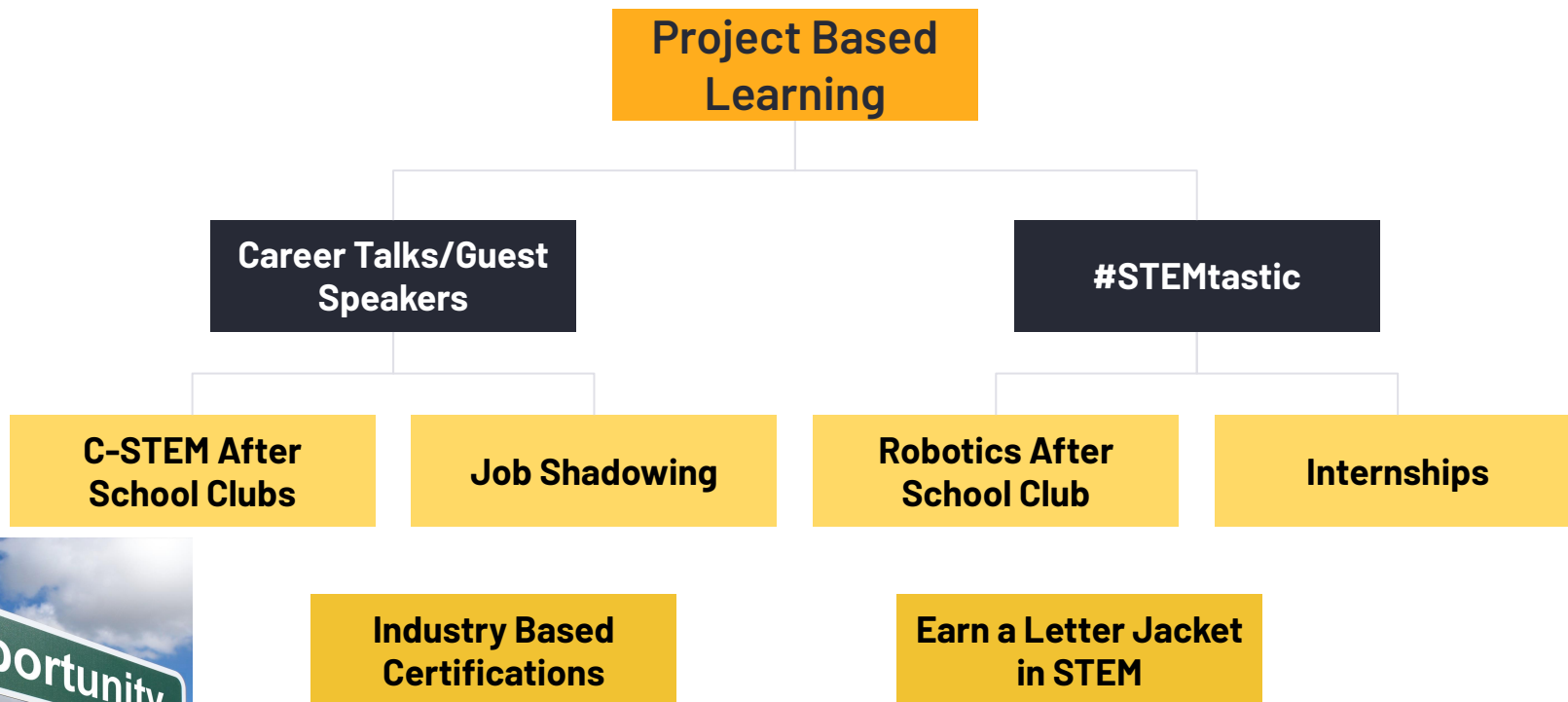
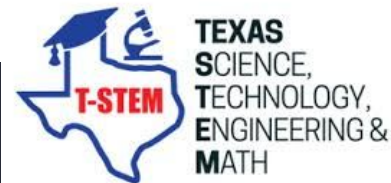
1,104  
Projected 2023 Credit  
Hours Earned



# *What is high school like in STEM?*

Student testimonials

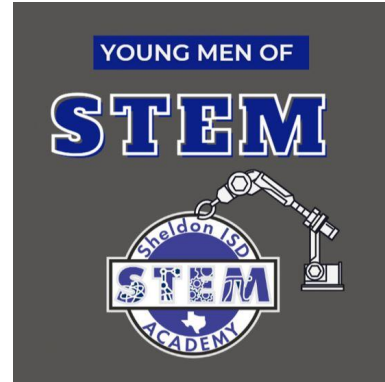
# Additional Program Highlights





# Individualized Support Systems

- AVID support all 4 years
- Mentoring Clubs
- Friday Morning Grade Checks
- Watchlists
- Saturday School
- Tutorials
- STEMtastics (STEM challenges)



# Career Connections & Partnerships

STEM students are able to connect with industry partners through project-based learning, field experiences, after school activities and STEM clubs, & lunch and learn opportunities.



# Frequently Asked Questions/Answers

**Are STEM students able to participate in extracurricular activities?**

**Yes, you can participate in athletics, band, ROTC, cheer, etc.**

**How are students selected for the academy?**

**Students are selected by a lottery.**

**When will we find out if we were selected for the STEM Academy?**

**Students will be notified in March.**

**What classes will I take as a STEM student?**

**All core classes will be PreAP/AP, AVID, STEM endorsement class, and you will be allowed to choose two electives of your choice.**

**Where will my classes be?**

**All classes will be at C.E. King High School, all four years.**

**How many college credits can I get in STEM?**

**You can earn 15 to 35+ dual credit hours. The more you pass, the more you can take.**

# STEM Academy

## 4 Year Plan

- **8th Graders:**
  - Complete Apply Texas Application
  - TSIA2 Prep / Testing (Summer Bridge Camp in June)
- **9th / 10th Graders:**
  - Pre-AP / AP Core @ KHS
    - English, Math, Science, Social Studies
  - Program of Study Courses / Extracurricular Activities / AVID
- **11th / 12th Graders:**
  - Up to three (3) courses @ SJC
    - **11th:** HIST 1301/02, MATH 1314, ARTS 1301 or MUSI 1310, SPCH 1315
    - **12th:** ENGL 1301/02 or ENGL 2311, GOVT 2305/06, SOCI 1301, HUMA 1301
  - Pre-AP / AP Core @ KHS
    - English, Math, Science, Social Studies
  - Program of Study Courses / Extracurricular Activities / AVID

**Want more? Choose STEM Academy**

# **% 2027 C. E. King High School STEM Graduate This could be you!**



**Complete your STEM Academy Application Today!  
Contact your 8th grade counselor for an application.**





I'M NOT SAYING IT  
WILL BE **EASY**  
I AM SAYING IT WILL  
BE **WORTH IT!**

[FEARLESSMOTIVATION.COM](http://FEARLESSMOTIVATION.COM)

Any questions? Please contact us:



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281-727-1330



Anike Allen  
STEM Coordinator

[anikeallen@sheldonisd.com](mailto:anikeallen@sheldonisd.com)

281-727-3596

Thank you

# Field Trips/Field Experiences





# Lunch and Learns/Career Talks

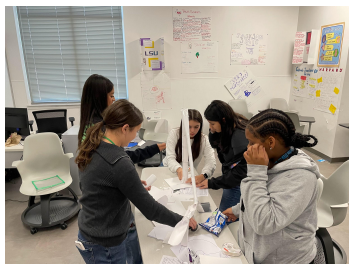
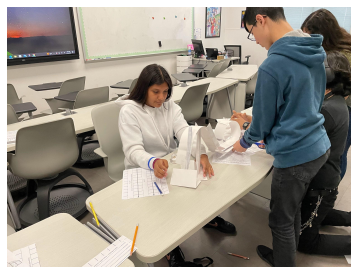
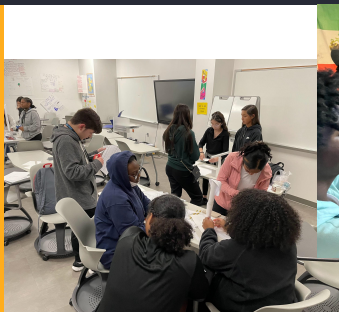


# STEM Clubs

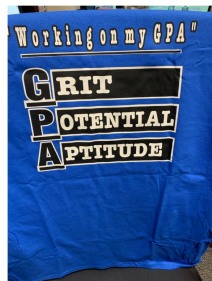




# After School Fun—STEMtastics



# STEM Letterman Jackets





# Industry Based Certifications

WE  
DIDN'T  
COME  
HERE  
TO BE  
AVERAGE!



# Portrait of a STEM graduate



## Graduate with:

- \*Diploma (advanced courses)
- \*College Credits (15-45+)
- \*STEM Endorsement
- \*Industry Based Certification
- \*Employability Skills
- \*Scholarship Opportunities
- \*GRIT