



C E KING H S
P-TECH Renewal Application
2023-2024

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Background

District Affiliation

SHELDON ISD

CD #: 101924

Region: 04

Mailing Address (Line 1): 11411 C E KING PKWY

Mailing Address (Line 2):

City, State, Zip: HOUSTON, TX 77044

School Affiliation

C E KING H S

CDC #: 101-924-001

Region:

Mailing Address (Line 1): 11433 E SAM HOUSTON PKWY N

Mailing Address (Line 2):

City, State, Zip: HOUSTON, TX 77044

Academy Information

What is the academy name?

Sheldon ISD STEM Academy

Which model does the district intend to implement at this time? Within these models, there are variations.

School-Within-School (SWS) - A subset of students on the campus are enrolled in grades 9-12 are enrolled in the academy.

Grade Levels Served

What grade level(s) will your academy plan to serve?

9
10
11
12

Enter the number of students that you plan to serve in 9th grade.

124

Enter the number of students that you plan to serve in 10th grade.

124

Enter the number of students that you plan to serve in 11th grade.

81

Enter the number of students that you plan to serve in 12th grade.

85

Contacts

Applicant

Applicant 1

Job Title

Deputy Superintendent

Name Prefix

Mrs.

First Name

Karen

Last Name

Gallow

Email

karengallow@sheldonisd.com

Phone

281-727-2046

Principal

Principal 1

Name Prefix

Mrs.

First Name

Kimberly

Last Name

Mouser

Email

kimberlymouser@sheldonisd.com

Phone

3463787266

Superintendent

Superintendent 1

Name Prefix

Dr.

First Name

King

Last Name

Davis

Email

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Phone

281-727-2006

Narratives

Narratives

The majority of the following questions will be narrative response. Narrative responses are limited to a maximum of 250 words. We recommend writing your responses in a text-editing software such as Microsoft Word and then pasting your responses into the website when they are complete. Progress to the next section when you are ready.

Narratives: Degrees and Credentials, Recruitment and Enrollment

Degrees and Credentials

Select the Career Cluster(s) that your academy plans to offer.

STEM

Select the Career Cluster(s) that your academy plans to offer.

Biomedical Science

Cybersecurity

Engineering

Programming and Software Development

Which of the following credential(s) does the academy plan to offer students?

IC

What industry certifications does the academy plan to offer?

Item

Autodesk Certified Professional or User in AutoCAD

Microsoft Technology Associate (MTA) Introduction to Programming Using JavaScript

Microsoft Technology Associate (MTA) Introduction to Programming Using Python

FAA (Federal Aviation Administration) Part 107 Remote Drone Pilot

Phlebotomy Technician

Does the IHE partner currently have an articulation agreement with a four-year IHE detailing how a student's associate degree and accrued credits could lead to a baccalaureate degree?

Yes

Provide the university name that your IHE partner has an articulation agreement with and the bachelor degree that students could earn using their associate degree and accrued credits. Each row represents a degree.

2-Year Degree

University

4-Year Degree

Associate of Science,
2-Year Degree
MathematicsLamar
University
UniversityBachelor of Science in Mechanical, Civil, or Chemical
4-Year Degree
EngineeringAssociate of Science,
MathematicsLamar
UniversityBachelor of Science, Computer Game Development; Bachelor
of Science, Computer Science

Recruitment and Enrollment

Describe any changes in established plans for recruitment and enrollment process that meet open enrollment requirements.

The STEM Academy will maintain its open enrollment process for students in Sheldon ISD. The recruitment process will remain the same while offering a choice of paper or online application options. Our STEM program will continue to recruit students during their fifth-grade and 8th grade years. Students will apply and will receive notification of their acceptance or wait-list position upon completion of a blind selection lottery. We will hold informational question and answer sessions in person at each elementary and middle school campus to meet with small groups of interested students to discuss the program. In addition, we will create a promotional video that highlights the STEM program and gives prospective students information about the different components of the program.

Narratives: Strategic Partnerships: IHE, Strategic Partnerships: Business Partner, Business Partners: Hiring Priority

Strategic Partnerships: Business Partner

Business/Industry Partner 1

Affiliation/Company

C-STEM Teacher and Student Support Services, Inc.

Job Title

President and CEO

Name Prefix

Dr.

First Name

Reagan

Last Name

Flowers

Email

rflowers@cstem.org

Phone

713-443-4521

Describe how the Business/Industry articulation agreement addresses the following Business/Industry Blueprint Requirements: Clear roles and responsibilities for work site supervisors, mentors, teachers, support personnel, and other partners.

Agreements address the businesses' responsibilities for providing student opportunities, including job shadowing, career exploration, and other work-based learning opportunities. The agreement communicates the roles for the school personnel, as well as the business partner's roles in providing both mentoring and career guidance for students in the STEM program. Specific opportunities include guest speakers, presentations about different job roles, information about careers, career advice and mentoring, and opportunities for internships. Our business partners, including LyondellBasell, C-STEM, Harris County Public Health, and Generation Park, commit to supporting students by giving feedback on project-based learning and serving on our advisory council. All STEM teachers have access to the software program Nepris, which allows for a virtual connection with industry professionals. Students in the Programming and Software Development and Engineering practicum courses are able to utilize industry-based programs such as Python, Inventor, and Autodesk to gain exposure to professional work environments and to develop skills that provide opportunities for collaboration with workforce partners. Worksite supervisors, mentors, teachers, and all partners comply with Child Labor Laws and the Fair Labor Standards Act, address the Texas Essential Knowledge and Skills through training plans, and provide safe work habits and environments. Worksite supervisors and coordinating teachers collaborate to develop job/attendance reports, evaluation and safety criteria, work-based learning curricula, work schedules, emergency contacts, and background checks for students assigned to worksites. collaborate to develop job/attendance reports, evaluation and safety criteria, work-based learning curricula, work schedules, emergency contacts, and background checks for students assigned,

Describe how the Business/Industry articulation agreement addresses the following Business/Industry Blueprint Requirements: Support for students' activities, such a clubs, Career and Technical Student Organizations, competitions, and special invitations.

Articulation agreements indicate that business/industry partners, such as LyondellBasell, C-STEM, Harris County Public Health, and Generation Park, support the STEM program through student activities, clubs, competitions and special initiatives. For example, LyondellBasell purchases supplies, trophies, and medals for our district Challenge Day Competition, funds student participation at the annual Women in Industry Conference, and provides bridge camp shirts for all incoming STEM Academy students and teachers each year. Generation Park provides opportunities for students to set up a booth, advertise our program, and interact with the community at their annual Community Day. They also support the Challenge Day event and purchase shirts for our STEM ambassadors. Our CSTEM partner provides us with assistance and support for our district-wide after school STEM program, and

they also assist by providing guest speakers and STEM community events for our students in the Houston area. Harris County Public Health (HCPH) has provided student site visits to their Virtual Reality and Innovation labs, as well as a contract to provide a mobile health clinic where students can earn service hours and shadow professionals. HCPH has also committed to providing our district with its own Innovation Lab, including the cost to renovate and equip one of our facilities. This provides opportunities for students to work collaboratively with medical professionals on STEM projects while developing critical thinking, communication skills, and creativity.

Describe how the Business/Industry articulation agreement addresses the following Business/Industry Blueprint Requirements: Student access to business and industry partners and work-based learning facilities, services, and resources.

Sheldon STEM articulation agreements expose students to professional work environments and support the development of skills that give them a competitive edge in attaining their college and career goals. The agreements provide opportunities for industry professionals to support and mentor students during project-based learning (PBL) activities that occur in Sheldon ISD or in the workplace. This includes release time from school to access business/industry facilities. Per the agreements, STEM students regularly engage with industry personnel through summer STEM camps, PBLs, and STEMtastic after school activities. This includes professionals such as scientists, doctors, drone pilots, engineers, computer programmers, and land developers. All STEM teachers have access to Nepris, which supports virtual connections with industry professionals. Our C-STEM business partner provides opportunities for guest speakers, mentors, sponsors for competitions, internships and scholarships through their network of sponsors, which includes, Center Point Energy, Halliburton, HESS and Comerica Bank. Workforce partners correlate what students learn in the classrooms to real-world experiences. Per the agreements, industry partners host STEM site visits for teacher professional development, as well as for student learning opportunities. The Technology Education and Literacy in Schools (TEALS) agreement also connects students and classroom teachers with industry professionals who provide learning support during computer science courses. The STEM Academy maintains and annually reviews agreements that clearly articulate the business/industry requirements outlined in this benchmark so that work-based learning opportunities are appropriately sequenced, and students are afforded the opportunity to understand, reflect upon, and demonstrate their learning.

Describe how the Business/Industry articulation agreement addresses the following Business/Industry Blueprint Requirements: Transportation fees and costs.

Business/Industry articulation agreements state that all transportation fees and costs to and from school and to and from work-based learning sites will be the responsibility of Sheldon ISD.

Strategic Partnerships: IHE

The P-TECH shall have strategic partnerships with business and industry partners and IHEs that are formally articulated in writing and clearly define a variety of careers.

IHE Partner 1

Affiliation

San Jacinto College

Name Prefix

Dr.

First Name

Brenda

Last Name

Hellyer

Email

brenda.hellyer@sjcd.edu

Phone

281-998-6100

Job Title

Chancellor

Describe how the IHE articulation agreement addresses the following IHE Blueprint Requirement: Curriculum alignment and courses of study, which enables a student to combine high school courses and college-level courses to earn either an associate degree, postsecondary certificate provided by an IHE, or industry certification.

Sheldon ISD STEM curriculum alignment and courses of study enable a student to combine high school and college courses that support earning an associate degree and/or an industry certification valued in high-wage, high demand STEM fields. The articulation agreement between San Jacinto College and Sheldon ISD provides for annually reviewing and publishing a crosswalk of courses that meets the Texas Education Agency Programs of Study, the TEA Approved Industry-Based Certifications, and the Texas Higher Education Coordinating Board Lower Division Academic Course Guide and Workforce Education Course Manuals. The agreement outlines expectations for students to earn the high school STEM endorsement and Distinguished Level of Achievement, participate in workbased learning, and earn college credit and certifications. The agreement requires the partners to collaboratively develop and refine a clear and coherent academic program across the two institutions for curriculum alignment, as well as intervention plans. In addition, it ensures that a college course taught to STEM students will be equivalent with respect to curriculum, materials, instruction, and method/rigor of evaluation to the same course taught on the college campus. STEM Academy instructors teaching college level courses must be San Jacinto College faculty members and meet the standards of Southern Association of Colleges and Schools (SACS). Delivery of STEM courses can occur at the high school campus, the college campus, or online. Via an advisory committee that regularly reviews data for student progress, higher education, school district, and business partners ensure curriculum alignment between high school, postsecondary, and industry professionals.

Describe how the IHE articulation agreement addresses the following IHE Blueprint Requirements: Policies for: 1) advising students on the transferability of all college credit offered and earned, 2) ensuring the IHE transcripts college credit earned through dual credit in the same semester that credit is earned, 3) advising students as to the transferability and

applicability to baccalaureate degree plans for all college credit offered and earned (college credits earned during high school should allow students to progress from an associate degree to a bachelor's degree and beyond in their chosen field), 4) students accessing the IHE facilities, services and resources

The STEM articulation agreement provides counseling and academic support services. It requires that the STEM counselor and college dual credit liaison provide students with information regarding degree plans, college majors, FAFSA, financial assistance, and waivers for tuition and fees. The college dual credit office provides academic and career counseling to support the Sheldon ISD STEM Academy students and advise students as to the transferability of all industry certifications and college credit earned to a certificate of technology, associate degree, and baccalaureate degree. The agreement provides for advising on satisfactory academic progress, college admissions, grade point averages, transcripts, degree plans, class registration, and college grading practices. Upon a student's completion of the performance required in a course, credit shall be reflected on the high school and college transcripts within the same semester that credit is earned. The IHE will report a letter or numerical grade for mid-term and semester grades. Per the articulation agreement, STEM Academy students will have reasonable access to all San Jacinto College North Campus buildings, including the student center, Center for Academic Student Achievement, tutoring center, disability services, career counseling, computer labs, library, bookstore, extracurricular activities, clubs, organizations, rooms for meetings, socialization, and cultural events. Students receive Sheldon ISD and San Jacinto College identification cards, which provide access to students enrolled at these institutions.

Describe how the IHE articulation agreement addresses the following IHE Blueprint Requirements: Transportation costs and fees including provisions for discontinuing operation while ensuring students previously enrolled will have opportunity to complete their course of study.

Per the IHE articulation agreement, Sheldon ISD is responsible for and will support the Sheldon ISD STEM Academy "day-to-day operational, instructional, and administrative costs, including administrative and staff salaries and benefits for Sheldon ISD STEM Academy Principal, counselor, and any other Sheldon ISD employees assigned to the program; transportation costs; professional development costs; and other school related expenditures." Thus, Sheldon ISD is responsible for transportation to and from the C.E. King High School campus, as well as to and from the IHE campus. Sheldon ISD and San Jacinto college also agree to comply with the agreement's requirements for discontinuing operations of Sheldon ISD STEM Academy. During the teach-out period transitioning from full operation to the discontinued program, San Jacinto College and Sheldon ISD will continue to meet all required elements of a P-TECH program and provide full support for all students enrolled in Sheldon ISD STEM Academy. During the teach-out period, no new or additional students will be enrolled in Sheldon ISD STEM Academy in grades that have been phased out.

Describe how the IHE articulation agreement addresses the following IHE Blueprint Requirements: Data sharing agreement that includes provisions for teacher data such as qualifications and student level data such as credit hours taken and earned, GPA, formative data to assess if student is on track for college readiness

In accordance with Applicable Law, Sheldon ISD maintains student records pertaining to the Sheldon ISD STEM Academy and will provide the IHE with education records, including grades, progress, and other informational data on student assessment, promotion, retention, award of diplomas, and other student data necessary and advisable for the IHE to perform its obligations under the articulation agreement. Data records are those created during the time for which students are enrolled in the Sheldon ISD STEM Academy and include, but are not limited to, the number of credit hours attempted

and earned, GPAs, state assessment results, SAT, ACT, PSAT scores, TSI readiness by grade level, qualifications of STEM staff and SJCCD college instructors, location(s) where courses are taught, articulation data of high school students in four-year colleges/universities, completion rates, enrollment/retention rates, leaver codes, attrition rates, PEIMS and TAPR data, and student participation in activities. Likewise, in accordance with Applicable Law, the IHE will maintain student records pertaining to students enrolled in the Sheldon ISD STEM Academy and will provide Sheldon ISD with education records to perform its obligations under the agreement. Each party designates the other as its agent with a legitimate educational interest in students' educational records for purposes of FERPA. Both parties institute policies and procedures reasonably designed to ensure that its employees and agents comply with federal and state laws governing the rights of Sheldon ISD STEM Academy students with respect to educational records and shall protect student records against disclosure to unauthorized persons.

Business Partners: Hiring Priority

List the business partner(s) that have an agreement with the district that students completing the P-TECH program and otherwise meet hiring requirements have priority interviewing with the employer.

Business Partner

C-STEM Teacher and Student Support Services, Inc.

Narratives: Regional Workforce Alignment, Work-Based Learning

Work-Based Learning

Add up to three activities offered to 9th grade students.

9th Grade Activities

Microsoft TEALS Program

Project-based learning

STEMtastic Events; Lunch and Learn STEM Career Talks

Add up to three activities offered to 10th grade students.

10th Grade Activities

Industry Credential

Project-based learning

STEMtastic Events; Lunch and Learn STEM Career Talks

Add up to three activities offered to 11th grade students.

11th Grade Activities

Friday Morning Career Talks with Dual Credit Students

Practicum Courses and Simulated Workplace Programs with Certification or License Attainment

Lunch and Learn STEM Career Talks

Add up to three activities offered to 12th grade students.

12th Grade Activities

Friday Morning Career Talks with Dual Credit Students

Practicum Courses and Simulated Workplace Programs with Certification or License Attainment

Lunch and Learn STEM Career Talks

Regional Workforce Alignment

List the regional high-demand occupations your academy intends to address through selected program(s) of study and work-based learning.

Regional High-Demand Occupation

Biomedical Technician

Medical and Clinical Lab Technician

Mechanical Engineer

Computer Programmer

Software/Application Developer

Regional High-Demand Occupation
Chemical Engineer

Narratives: Advanced Academics

Advanced Academics

Select the type of advanced courses (dual credit/AP/IB) your campus plans to offer students.

DC

AP

What type of dual credit courses does your campus plan to offer?

AGCM

Describe any challenges in ensuring your academy has educators with qualification to teach dual credit. What steps did your academy take to address the need?

Sheldon ISD faces the challenge of recruiting and retaining educators who have the credentials to teach dual credit. To address the need, the STEM Academy will continue posting jobs that indicate the preferred dual credit credentials and will provide a stipend to dual credit teachers. In addition, Sheldon ISD will continue to promote opportunities with universities that offer programs and scholarships that allow teachers to earn their master's degree and 18 hours in a content area. Applicants who meet the qualification to teach dual credit will be prioritized during the interview process.

Is the academy a TSIA testing site?

Yes

Narratives: Curriculum and Support

Curriculum and Support

Provide examples of how the campus plans to provide students with academic services. List activities and brief descriptions of the activities. Add a new row for each provided service.

Activity	Description
AVID	Near peer tutoring for advanced courses, college readiness advisory, and organizational skills
Summer Bridge	Introduction to STEM culture, parent engagement opportunities, and TSIA2 preparation
Personal Graduation Plans	Plans reflect STEM endorsement, advanced coursework, postsecondary options and programs of study. Minimum of 15 college credit hours per each student
Saturday School	Opportunities for college tutoring and TAIS2 preparation and intervention
Mentors	Business/industry mentors support students

Provide examples of how the campus plans to provide students with wrap-around services. List activities and brief descriptions of the activities. Add a new row for each wrap-around service.

Activity	Description
STEM Parent Engagement Nights	Parent outreach, information, and engagement
STEM PBL Showcase	Stakeholders--parents, community, business partners--witness students presenting their PBL products
Engineering Day	Host professional engineers who share their story (background, educational journey, day-to-day work)
Communication Plan	Includes Advisory Council feedback, website, social media. Remind, campus TV monitors, and Spanish translations
Social Services	Counselors connect students to community services as needed
Texas Success Initiative Plan for Success	Preparation for TSIA2, PSAT success prior to 11th grade

How does your academy use the access, achievement, and attainment data for program improvement?

The STEM Academy uses the blueprint's outcome-based measures to guide the decision-making process and design for our program. Access is measured by student recruitment and enrollment. Attainment is measured via course completion, TSIA2, PSAT, certification, Advanced Placement, and SAT/ACT exams taken. Achievement is monitored through equitable course grades and exam scores. Academic data is monitored weekly, monthly, and at the end of each grading period to drive instruction, intervention, and assessment. Demographic data is analyzed each school year to drive recruitment for the underrepresented sub-populations of both the academy and in the STEM industry. Our program researches the projected workforce needs in the local area and collaborates with

IHE and industry partners to determine course crosswalks and academic pathways. In addition, we work with our partners to implement Project Based Learning that addresses real needs and builds skills that students will use in the workforce. Our program collaborates with various district personnel, including Special Education, Advanced Academics, and Career and Technical Education, to analyze data related to P-TECH outcome-based measures. The data is shared regularly with the STEM Advisory Council so that all stakeholders can monitor, evaluate, and contribute to the program's success and improvement.

Narratives: Leadership Team

Leadership Team

List the Leadership Team's three priorities for the next year and describe how the selected priority contributes to the academy's success. Each priority should be a benchmark from the ECHS/T-STEM/P-TECH Blueprint.

Benchmark	Description
Benchmark 4: TSI Achievement	Students must score college ready to enroll in college courses
Benchmark 5: Workbased Learning	Students will learn real-world skills and be able to present their learning in a variety of formats
Benchmark 6: Student Support	Provide academic support specifically for Dual Credit students that need intervention and/or remediation.

Narratives: Benchmark Products

Benchmark Products

On this page, you must provide a hyperlink to the location where your digital products corresponding to the product and activities that are required to be posted by the first day of serving students. Enter the hyperlink here. Hyperlinks must be entered with the fully qualified URL including "HTTP://" or "HTTPS://".

<https://sites.google.com/apps.sheldonisd.com/sheldon-isd-stem-academy/home>

