



West HS/MS STEM Academy  
T-STEM Renewal Application  
2018-2019

# Contents

[Background](#)

[Contacts](#)

[Narratives](#)

[Download Assurances Signature Page](#)

# Background

## District Affiliation

WEST ISD

DC #: 161916

Region: 12

Mailing Address (Line 1): 801 N REAGAN ST

Mailing Address (Line 2):

City, State, Zip: WEST, TX 76691

---

## School Affiliation

WEST H S

**CDC #:** 161-g16-001

**Region:**

**Mailing Address (Line 1):** 801 N REAGAN ST

**Mailing Address (Line 2):**

**City, State, Zip:** WEST, TX 76691

---

## Academy Information

**T-STEM Academy Name:**

West HS/MS STEM Academy

**What grade level range will your academy serve in the 2018-2019 school year?**

6-12

Grade Level	Number of Students
6	85
7	95
8	125
9	110
10	125
11	110
12	100

# Contacts

## Business Partner

**Affiliation:** University of Texas at Tyler Ingenuity Center

**Job Title:** Executive Director

**Full Name:** Dr. Michael Odell

**Email:** modell@uttyler.edu

**Phone Number:** 903-566-7132

## Superintendent

**Job Title:** Superintendent

**Full Name:** Mr. David Truitt

**Email:** dtruitt@westisd.net

**Phone Number:** 254-981-2000

## Applicant

**Job Title:** Principal

**Full Name:** Mr. Don Snook

**Email:** dsnook@westisd.net

**Phone Number:** 254-981-2050

## IHE Liaison

**Affiliation:** McLennan College

**Job Title:** Director of High School Pathways

**Full Name:** Mrs. Londa Carriveau

**Email:** lcarriveau@mcclennan.edu

**Phone Number:** 254-299-8937

# Narratives

## Model Implementation

**Which T-STEM model does the district intend to implement at this time? Within these models, there are variations. For this purpose campus is defined as a CDC number not a physical location.**

Stand Alone Academy: Multiple Campuses - All students on the campus are enrolled in the T-STEM academy.

## Endorsements

**Identify the current endorsements that are offered:**

- Science, Technology, Engineering, and Mathematics (STEM)
- Business and Industry
- Arts and Humanities
- Multi-disciplinary Studies

## Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
AutoCAD Inventor	User level certification for 3D modeling
AutoCAD Revit	user level certification for architecture
Adobe Certified Associate: Photoshop	user level photoshop
Adobe Certified Associate: Animate	user level Animate
Microsoft Office Specialist: MS Word	user level MS Word
Quickbooks Certified User	user level QuickBooks
Texas Beef Quality Assurance	Ag Science certification

## Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
---------------	-------------

## Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
---------------	-------------



## Key Elements for Success

**Provide a link to the job description, roles of design team, leadership team, and advisory board.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406044](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406044)

**Provide a link to your mission statement.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406046](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406046)

**Provide a link to the final, signed, and executed MOU.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406047](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406047)

**Provide a link to the academy's master schedules.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406049](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406049)

**Provide a link to the academy's Student IGPs with CCRS and Performance Acknowledgement Plans.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406052](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406052)

**Provide a link to the academy's written admission policy and enrollment application.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406053](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406053)

**Provide a link to the academy's written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community**

<https://westisd-hs.edlloadmin.com/apps/pages/d/1139206/1406054>

**Provide a link to the academy's description of instruction practices.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406055](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406055)

**Provide a link to the academy's STEM-focused extracurricular activities.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406057](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406057)

**Provide a link to the academy's internship and externship opportunities.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406058](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406058)

**Provide a link to the academy's Senior Capstone Project description.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406059](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406059)

**Provide a link to the academy's Student Portfolio Plans.**

<https://westisd-hs.edlloadmin.com/apps/pages/d/1139206/1406060>

**Provide a link to the academy's Academic Literacy Plan.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406062](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406062)

**Provide a link to the academy's Assessment strategy.**

[https://hs.westisd.net/apps/pages/index.jsp?uREC\\_ID=1139206&type=d&pREC\\_ID=1406064](https://hs.westisd.net/apps/pages/index.jsp?uREC_ID=1139206&type=d&pREC_ID=1406064)

## Free-Response

### **Describe how the Academy will recruit, support, and retain highly qualified teachers.**

West ISD recruits and hires highly qualified teachers. All teachers new to West ISD are enrolled in our Mentoring Program. The goal of the mentor program is to help our teachers become leaders, designers, and guide effective instruction. In helping teachers build capacity, we are creating a learning organization with the capacity to focus on the future, the capacity to maintain direction, and the capacity to prepare all students. West ISD's mentoring program combines campus-based and district level support to reduce attrition and enhance students achievement by providing dedicated, experienced, and growth-minded teachers. West ISD's Curriculum and Instruction department is the agent for the program. The Instructional Coaches are the facilitators for teaching and learning support and ongoing monitoring for teachers new to West ISD. Proteges are required to participate a minimum of one school year. If the mentor teacher and/or the Instructional Coach determine that additional mentoring time is appropriate, the protege may remain in the program for up to 3 years.

As previously stated, all teachers participate in structured PLC time led by our principal, Don Snook, who was previously the principal at a state and national model STEM school. On Mondays, teachers participate in a book study and learn the Ingenuity Centers STEM PBL protocols, while developing projects and reviewing in a critical friends model. On Tuesdays, teachers learn about technology integration and share strategies that have been successful. On Wednesday's, teachers conduct learning walks in their peers classrooms. Thursday is devoted to curriculum development and differentiation resources and Fridays are times for the team to collaborate on their own. Using this format, teachers are able to find support in their groups while reflecting on best practices in their classrooms. Teachers may also elect to attend the Texas state STEM conference and have professional development opportunities available in the summer from the Ingenuity Center. This past year, three teachers attended training offered at the Ingenuity Center.

**Describe the current STEM pathways available at the academy.**

STEM Pathways include Engineering through Project Lead the Way, which consists of IED, Civil and a Capstone class currently taught with Aerospace being added in 2019. Biomedical Science Pathway through Project Lead the Way, which consists of Principals of Biomedical Science, Human Body Systems and a Capstone class currently taught with Medical Interventions being offered in 2019. Computer Science Pathway, with Computer Science I being offered for next year. Ag Mechanics Pathway which consists of Principals of Ag, Ag Mechanics, Ag Facilities Design and Ag Power Systems as a sequence of classes. Horticulture Pathway, which consists of Principals of Ag, Horticultural Science, Greenhouse Operations and a Horticulture Capstone as a sequence of classes. In addition to those pathways, West High School offers dual credit advanced classes in Mathematics and Science, which allows students to complete a STEM pathway in those academic disciplines.

**Describe how strategic alliances with industry partners and IHEs will support the Academy. The description should include details regarding the role of each IHE, business, and/or community partnership; along with parent/family partnerships and communication conventions with the Academy.**

West High School conducts meetings with parents to communicate information and to solicit concerns. Parents also receive communication via weekly parent newsletters sent out by teachers, access to the LMS

(Schoology), email blasts, telephone blasts, school and district websites and the community newspaper.

West High School hosts a day camp in the summer in which all parents and students are invited to attend. At the camp, the parents are educated on STEM expectations, sessions about software products that we use,

navigating the LMS, and accessing our grading system. Information is also given regarding course selection,

endorsements, dual credit offerings, and STEM careers. TSI camp is also held to ensure students are prepared

for the TSI test necessary for enrollment in college courses. The test is provided at no cost to the student.

West High School communicates with parents in multiple ways. All events are posted on our website and social media pages. Teachers also produces an electronic weekly newsletter to communicate events and

information to parents. The district uses an alert now system within their software to communicate immediate information via telephone and email. Teachers also utilize Remind, a third party application that allows for mass texting of messages to stakeholders.

Before implementing new programs, West High School polls all students to ensure student consideration of issues. Input from parents and students is important part of the decision making process prior to implementing anything new. Once new programs are implemented, meetings are again held to inform parents and to allow final input. Parents also serve on the campus improvement team and SHAC committee. Parents are encouraged to visit the campus prior to enrollment to meet with the principal and campus counselor to discuss expectations and strategies for high student performance. Transparency and clarification are important for the success of the school.

West High School has an important and highly involved relationship with McLennan County College and the Texas State Technical College. There is a relationship with the University of Texas at Tyler and The Ingenuity

Center as well. The Ingenuity Center conducts Professional Development in PBL and STEM fields. McLennan County College and Texas State Technical College provides Dual Credit support for students. All students enrolled in dual credit have full access to the college.

West High School has an annual action plan that is revised yearly with involvement with our partners. Partners are being actively sought to provide internships for teachers and students. Currently, Baylor Scott

and White has provided internship opportunities for our students. Additional organizations are being recruited

for the 2018-2019 school year.

Baylor University and the teacher certification program at McLennan County College provides quality math

and science instructors.

Our partnership with MCC and TSTC allow for meaningful experiences for our students

## **Describe the Academy's work-based and contextual learning in the curriculum.**

West High School has well-defined programs that are aligned with the TEKS and CCRS. To address industry standards we have adopted Project Lead the Way to assure relevance and rigor for engineering and biomedical sciences. STEM Electives: At the Middle School Level grades 7-8 students complete PLTW Gateway to Technology. Gateway provides engineering and biomedical science curriculum for middle school students that challenges, inspires, and offers schools variety and flexibility. Students get rigorous and relevant experiences through activity-, project-, and problem-based learning. They use industry-leading technology to solve problems while gaining skills in communication, collaboration, critical-thinking, and creativity (PLTW Website). Students complete 2 GTT modules at each grade. 7th graders complete design and modeling and automation and robotics, while 8th graders complete medical detectives and flight and space. These units were chosen to complement the engineering and biomedical sequences offered at the high school level. At the High School Level students will complete a STEM Pathway. We offer Pathway to Engineering, PLTW Biomedical Sciences, and eventually computer science. All courses will lead to a culminating senior capstone class with presentation requirements. These courses were chosen to align with CTE standards. From the PLTW Website: PLTW Engineering is more than just another high school engineering program. It is about applying science, technology, engineering, and math to solve complex, open-ended problems in a real-world context. Students focus on the process of defining and solving a problem, not on getting the answer. They learn how to apply STEM knowledge, skills, and habits of mind to make the world a better place through innovation. Through hands-on projects, students explore various engineering disciplines before beginning post-secondary education or careers. PLTW Biomedical Science is a rigorous and relevant four-course sequence that allows students to play the roles of biomedical professionals as they investigate and study the concepts of human medicine, physiology, genetics, microbiology, and public health. Students examine the structures and interactions of human body systems and explore the prevention, diagnosis, and treatment of disease, all while working collaboratively to understand and design solutions to the most pressing health challenges of today and the future. Assessments: All students will complete performance and project-based assessments in all classes as part of Discipline-based PBL or PLTW. In addition PLTW has just developed a partnership with STEM Premier to provide all PLTW Students with electronic portfolios so they can

market their STEM abilities. Extracurricular STEM We already have developed Vex Robotics Teams and plan to participate in the real-world Design Challenge at the High School Level for the next school year. This school year, we have a TSA club at the middle school and high school as well as VEX robotics teams at both schools. Secondary students are working with the elementary school in the development of a VEX IQ team. Students will also have the opportunity to participate in UIL Academic competitions and develop their own clubs based on interest.

**Describe the STEM-focused extracurricular activities (field experiences, clubs, and competitions) offered to students.**

We already have developed Vex Robotics Teams and plan to participate in the real-world Design Challenge at the High School Level for the next school year. This school year, we have a TSA (Technology Student Association) club at the middle school and high school as well as VEX robotics teams at both schools. Secondary students are working with the elementary school in the development of a VEX IQ team. Our students are also active in Destination Imagination, with multiple teams at the middle and high school level. Our TSA and robotics teams participate in DEAR day at the elementary as well as in various community service activities.