



Young Women's Leadership Academy At Arnold
T-STEM Renewal Application
2018-2019

Contents

[Background](#)

[Contacts](#)

[Narratives](#)

[Download Assurances Signature Page](#)

Background

District Affiliation

GRAND PRAIRIE ISD

DC #: 057910

Region: 10

Mailing Address (Line 1): BOX 531170

Mailing Address (Line 2):

City, State, Zip: GRAND PRAIRIE, TX 75053

School Affiliation

YWLA AT BILL ARNOLD

CDC #: 057-910-053

Region:

Mailing Address (Line 1): 1204 E MARSHALL DR

Mailing Address (Line 2):

City, State, Zip: GRAND PRAIRIE, TX 75051

Academy Information

T-STEM Academy Name:

Young Women's Leadership Academy At Arnold

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

6-12

Grade Level	Number of Students
6	225
7	225
8	248
9	23
10	20
11	32
12	41

Contacts

Business Partner

Affiliation: Frontiers of Flight Museum
Job Title: President and CEO
Full Name: Ms. Cheryl Sutterfield-Jones
Email: csuttjones@flightmuseum.com
Phone Number: 214-350-0258

Superintendent

Job Title: Superintendent
Full Name: Dr. Susan Hull
Email: Susan.Simpson@gpisd.org
Phone Number: 972-264-6141

Applicant

Job Title: STEM/CTE Instructional Coach
Full Name: Ms. Elizabeth Hart
Email: elizabeth.hart@gpisd.org
Phone Number: 972-343-7414

Business Partner

Affiliation: Dallas County Community College District
Job Title: Director - STEM Institute
Full Name: Dr. Jason Treadwell
Email: jtreadway@dccd.edu
Phone Number: 214-378-1553

IHE Liaison

Affiliation: Dallas County Community College District
Job Title: Program Coordinator of Dual Credit
Full Name: Mrs. Laura Mendez
Email: lmendez@dccd.edu
Phone Number: 972-860-3984

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 - 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
- Public Services
- Arts and Humanities
- Multi-disciplinary Studies

Industry Certificates

Identify all industry certificates offered to students.

Certificate	Description
OSHA	Training on the recognition, avoidance, abatement, and prevention of safety and health hazards in workplaces
Cyber Safety	Training designed to educate, equip and empower individuals with the knowledge and resources needed to protect children from Internet dangers.
WFR Employability	Training of basic skills and knowledge of essential workplace readiness skills for entry-level employment in a variety of career areas.
AutoCad	Training for the basics of the software, as well as how to control efficiency tools, working layouts, complex objects, and image files.

Level One Certificates

Identify all level one certificates offered to students.

Certification	Description
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Level Two Certificates

Identify all level two certificates offered to students.

Certification	Description
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Key Elements for Success

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

<https://www.gpisd.org/domain/7994>

Provide a link to your mission statement.

<https://www.gpisd.org/domain/11668>

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

<https://www.gpisd.org/cms/lib/TX01001872/Centricity/Domain/12444/Grand%20Prairie%203rd%20Amendment%202017-18%20final.pdf>

Provide a link to the academy's master schedules.

https://gpisdk12-my.sharepoint.com/:x:/r/personal/ehart_gpisd_org/_layouts/15/doc.aspx?sourcedoc=%7B50fdf562-7293-4a2e-80fb-0d02a288992b%7D&action=default&uid=%7B50FDF562-7293-4A2E-80FB-0D02A288992B%7D&ListItemId=372&ListId=%7BCBACF873-FD29-4743-8C62-A5877794510F%7D&odsp=1&env=prod

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

<https://www.gpisd.org/Page/37221>

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

<https://www.gpisd.org/domain/12515>

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://www.gpisd.org/Page/43432>

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

<https://www.gpisd.org/domain/11684>

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

<https://www.gpisd.org/domain/11701>

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

<https://www.gpisd.org/Page/37041>

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

<https://www.gpisd.org/domain/11695>

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

<https://www.gpisd.org/careercruising>

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

<https://www.gpisd.org/domain/11691>

Provide a link to the academy's Assessment strategy.

<https://www.gpisd.org/Page/36452>

Free-Response

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

Young Women's Leadership Academy at Arnold (YWLA) and Grand Prairie Independent School District (GPISD) work together to continually engage in the recruitment and retention of teachers. We are very much aware that teachers' effectiveness is a high predictor of teacher retention. When students perform well teachers are more likely to stay in their jobs. GPISD's Human Capital department focuses much of their effort on the recruitment and retention of teachers. The district advertises positions available on the district's website and develops informational flyers to target high needs areas. Billboards and highway signs are used to highlight job fairs and district events. In addition, the district established partnerships with local teaching colleges such as Dallas Baptist University (DBU), University of North Texas (UNT), and University of Texas at Arlington (UTA). Through these partnerships many student teachers are placed on campuses in an effort to entice new teachers to join our district. Recently, a new Memorandum of Understanding (MOU) was signed between UTA and GPISD. This new MOU allows for qualifying high school students to enroll in the Education and Leadership Academy at our own school and take dual-credit courses through UTA. Upon graduation, these students will continue their studies at UTA and earn their degrees and teaching certificates. The goal is to produce more teachers, particularly ones with bilingual training, who will eventually return to Grand Prairie to begin their careers. The collaboration between UTA and GPISD is a tremendous example of forward thinking to combat the teacher recruitment problem.

Once we recruit a teacher, YWLA focuses on retaining the best teachers. Our school provides informal mentoring and induction programs to novice teachers in an effort to provide the support necessary to acquire skills and transfer knowledge into classroom practices. Both our district and campus provide opportunities for high quality professional learning. On campus, the Academic Facilitator and Instructional Coach conduct focused and research-based professional development learning that has been shown to improve teaching practices. Our high-quality professional development opportunities are focused on supporting teacher development and improving the conditions for student learning.

Describe the current STEM pathways available at the academy.

Young Women's Leadership Academy at Arnold (YWLA) has two STEM pathways, Engineering and Biotechnology. In the STEM Engineering pathway, students take a sequence of courses including Principals of Applied Engineering, Engineering Design & Presentation I and II, and Engineering Practicum as well as electives such as computer science and computer programming. Students who complete this pathway will learn the concepts needed to develop their ideas into solutions that will improve our lives. Through exciting hands-on learning activities like rating consumer products, destructive testing, drafting, design, presentation, career exploration, and 3D solid modeling students expand their knowledge. The pathway also has opportunities for field-based exploration. This pathway applies math, science, technology, history, and English into its content.

For the STEM Biotechnology pathway, students take a sequence of courses including Principal of Biosciences, Biotechnology I and II, and Biotechnology Practicum as well as optional electives such as Forensic Science. In Biotechnology I, students explore the world of biotechnology including the basics of microbiology, bioprocessing, genetic engineering, and biotechnology careers as well as examining the role of biotechnology in the medical field. Some topics students examine include bioengineering, forensics, and food biotechnology. This course is a hands-on, experiment-based experience that will keep students interested with exciting lab-based learning and field-based exploration.

We have also expanded our STEM focus to include our middle school students. In the 2017-2018 school year, we added two additional courses to the middle school electives: STEM Elective and Technology Applications. By enhancing current STEM focused curriculum, YWLA seeks to provide young women with hands-on activities conducting experiments and simulations in a controlled environment. Currently, various educational frameworks emphasize inquiry-based learning allowing for students to discover information and develop understandings through experience. Rather than memorize facts, the curriculum engages students' scientific curiosity, critical thinking, and problem-solving skills to develop an understanding of how things work. Moreover, our new elective courses will connect math and science to real-world applications in an effort to spark interest in the STEM Pathways. Thus, students can understand the relationship between the topics and real-world impact. Each class will focus on engaging learners in science, technology, engineering, and mathematics concepts through a hands-on approach frequently not possible in the traditional middle school classes.

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.

Through our core values of college readiness, leadership, and wellness life skills, we encourage our scholars to focus on the task at hand but strive for excellence. With the vision established on the campus being one of academic success and a STEM-focused curriculum, the staff will easily embrace strategies focused on increasing the math and science scores on campus. Additionally, the district STEM Director actively engages in the development and support of STEM endeavors on multiple campuses. The STEM Director has developed a multi-campus STEM Leadership Team which meets on a monthly basis and provides support and ideas to one another. Our campus' participation will provide us access to a forum for sharing best practices, proven techniques and unique methodology for our STEM focus.

Young Women's Leadership Academy at Arnold (YWLA) currently has partnerships with institutions of higher education through Dallas County Community College District, the University of Texas at Arlington, and the University of Texas OnRAMPS program. After meeting the Texas Success Initiative Assessment requirements in reading, writing, and math our students become eligible to enroll in dual credit courses on these campuses.

YWLA has developed partnerships with the Frontiers of Flight Museum and Design Connect Create. Each of these organizations target under-resourced young women in middle and high school. They aid us in providing educational opportunities that stimulate interest in STEM studies and lead to careers in STEM fields.

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

Through our partnerships and collaboration with local businesses and industries, YWLA is able to offer students work-based and contextual learning experiences. This year, our campus has placed student interns at UT Southwestern Medical Center, Baylor, Scott & White Medical Center at Irving, Grand Prairie City Hall IT Department, and the Frontiers of Flight Museum. These experiences provided unique opportunities for students to gain career awareness and career exploration that will help them utilize critical thinking and problem-solving skills, which are critical components of a STEM education.

Our students have been presented with many opportunities to enhance their development in STEM. Students have been able to participate in tours of General Motors Assembly Plant and Southwest Airlines corporate offices. A new partnership with the Bio-Engineering Research department at the University of Texas at Arlington has afforded our students opportunities to tour the facilities and conduct hands on activities. At the Grand Prairie Landfill, our students have explored environmental issues and careers.

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

The YWLA student body population is diverse and we have many students from families who speak languages other than English. About 84% of our girls qualify for the Federal Free or Reduce Lunch Program. Many of our students at YWLA come from families with limited extra-curricular or field experiences. Although a student's limited exposure can hinder their academic growth, we strive to provide those experiences for our girls. Our goal is to help develop these young women so they understand their options in life and with higher education. Being a single gender school, we are focused on the unique needs and development of our young women and assist in alleviating any fears about college and careers. Our teachers and staff consistently look for ways to improve student motivation, attention, behavior, attendance and focus. We believe by creating field experiences and clubs as well as participating in competitions we will inspire our students to explore college and career paths they never before imagined. These experiences will assist in developing students who are more confident, possess strong character, and demonstrate self-reliance. These personal attributes will serve to benefit the students' academic and emotional growth as well as provide education about STEM.

This school year, our students were presented with many field experience opportunities to enhance their development in STEM. Through partnerships with various business and organizations, we have developed field experiences for both middle and high school students. This year, field experiences have included tours of General Motors Assembly Plant and Southwest Airlines corporate offices. A new partnership with the Bio-Engineering Research department at the University of Texas at Arlington has afforded our students opportunities to tour the facilities and conduct hands on activities. At the Grand Prairie Landfill, our students have explored environmental issues and careers. In addition, our students participate in within district and out of district competitions and events such as STEAMposium and Expand Your Horizons at Texas Wesleyan University,

YWLA students have access to after school clubs such as Texas Alliance of Minority Engineers (T.A.M.E.), Biology Club, and Clean and Green Environmental Club. Each club provides opportunities for students to explore careers in STEM. Through the installation of these clubs, we have developed partnerships among educators, industry, government and families to inform, educate and motivate our students. Our high school students participate in SkillsUSA. Through this partnership of students, teachers, and various industry representatives, our students excel and become more prepared to be part of the skilled workforce within America.